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**RULES OF THUMB FOR PRODUCING  
FOOD STAMP PROGRAM IMPACT ESTIMATES**

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## **EXECUTIVE SUMMARY**

The Food Stamp Program (FSP) provided assistance to over one in ten Americans each month in 1994. Given the FSP's large caseload and costs, which exceeded \$25 billion in 1994, policymakers and program administrators continually evaluate the program, proposing changes to its eligibility criteria and benefit structure intended to make it more effective. To make informed decisions about food stamp policy, policymakers rely on information from the Food and Consumer Service's Office of Analysis and Evaluation (OAE), which develops estimates of the net impact of proposed reforms on FSP costs. OAE relies primarily on microsimulation models to produce these estimates; however, when the immediate need for these estimate precludes the use of microsimulation models, OAE relies on "rules of thumb".

Rules of thumb are essentially estimates of the change in food stamp benefits resulting from a given change in an FSP parameter or a change in a program that interacts with the FSP. They are based on estimates from microsimulation models and program and survey data. In this report, we present updated and improved rules of thumb for estimating the effects on the FSP of changes to (1) the FSP itself and (2) other public assistance programs that interact with the FSP.

### **RULES OF THUMB FOR CHANGES TO THE FSP**

We developed rules of thumb for estimating the effects of changes in the following FSP parameters: asset and income limits, maximum and minimum benefit levels, the benefit reduction rate, and the five FSP deductions. We recommend using the rules of thumb presented in Table 1. These rules of thumb were produced by converting impact estimates from microsimulation models into dollar changes in benefits per unit change in the parameter. The rules of thumb show that a dollar change in the maximum benefit, the standard deduction, the earnings deduction, and the shelter deduction threshold, and a percentage point change in the benefit reduction rate change food stamp benefits per participant by at least 10 cents; a similar change in other parameters has a weaker impact on food stamp benefits.

For example, a dollar increase in the standard deduction would increase food stamp benefits by \$0.0968 per participant. Using this rule of thumb, a \$100 increase in the standard deduction would increase food stamp benefits by \$9.68 per participant. To estimate the impact of this reform on total FSP costs, multiply the per participant food stamp benefit increase of \$9.68 by the total number of FSP participants.

### **RULES OF THUMB FOR CHANGES TO PUBLIC ASSISTANCE PROGRAMS INTERACTING WITH THE FSP**

Since the FSP counts benefits from other programs as income, we also developed rules of thumb to estimate the impact on FSP costs of changes to the Aid to Families With Dependent Children program, the Supplemental Security Income program, the Social Security program, and the Unemployment Compensation program. The rules of thumb for each of the programs are as follows:

**TABLE 1**  
**RULE-OF-THUMB IMPACT ESTIMATES FOR CHANGES TO THE FSP**

Parameter	Reforms	Monthly Dollar Change in Food Stamps Per Participant
<b>Eligibility Screens</b>		
Asset Limit	\$1 Increases	0.0014
Vehicular Asset Limit	\$1 Increases	0.0011
Income Screens (US Size 4)	\$1 Increases	0.0013
(Changes to Net; Gross = 130% Net)	\$1 Decreases	-0.0080
<b>Benefit Computation</b>		
Maximum Benefit (US Size 4)	\$1 Increases	0.2664
	\$1 Decreases	-0.2590
Minimum Benefit	\$1 Increases	0.0383
	\$1 Decreases	-0.0093
Benefit Reduction Rate	1% Increases	-0.8175
	1% Decreases	1.2483
<b>Income Deductions</b>		
Standard Deduction (US)	\$1 Increases	0.0968
	\$1 Decreases	-0.1008
Earnings Deduction	1% Increases	0.1475
	1% Decreases	-0.1692
Medical Deduction Threshold	\$1 Increases	-0.0012
Dependent Care Deduction Cap	\$1 Increases	0.0001
Shelter Deduction (US)		
Cap	\$1 Increases	0.0110
Threshold	1% Increases	-0.1354
	1% Decreases	0.2117

NOTE: Estimates are based on the 1994 MATH Model with the exception of the estimates for reforms to the asset limits, which are based on the January 1992 FOSTERS model, and estimates for reforms to the earnings deduction, which are based on the 1992 QC Minimodel.



- Aid to Families With Dependent Children: 29.2%
- Supplemental Security Income: 13.6%
- Social Security: 0.5%
- Unemployment Compensation: 1.9%

**These rules of thumb indicate the percentage change in total FSP costs for a given change in the interacting program's benefits. For example, if Aid to Families With Dependent Children benefits increased by \$100 million, FSP costs would decrease by \$29.2 million.**

**The advantage of both sets of rules of thumb is that they allow OAE to provide policymakers and administrators with information about the effects of program changes in a very short amount of time.**

## I. INTRODUCTION

The Food Stamp Program (FSP) provided assistance each month to more than 27 million Americans in 1994, nearly 11 percent of the U.S. population. This large and growing caseload, along with annual program outlays that exceed \$25 billion, make the FSP one of the nation's primary social welfare programs. Given the size and cost of the FSP, policymakers and program administrators continually evaluate the program with an eye toward improving its effectiveness or achieving other program objectives. This process stimulates a stream of proposals for changing the FSP, and in addition to considering these changes, policymakers consider broader welfare reform proposals that may have profound consequences for the FSP.

The role of the Food and Consumer Service's (FCS) Office of Analysis and Evaluation (OAE) in this process is to provide in a timely manner accurate and robust estimates of the impact of these proposed reforms on the FSP. If policymakers or administrators need these estimates immediately, or if other more sophisticated approaches to producing impact estimates (such as microsimulation modeling) are not available or appropriate, OAE uses "rules of thumb" to produce the estimates. These rules of thumb are derived from estimates produced by microsimulation models, and survey and program data. In this report, we present updated and improved rules of thumb for estimating the impact of reforms to the FSP itself on program costs (Chapter II) and of reforms to other social welfare programs that interact with the FSP (Chapter III).

## **II. RULES OF THUMB FOR CHANGES TO THE FSP**

In this chapter, we explain how the rules of thumb for estimating the impact of changes to the FSP's eligibility criteria and benefit structure on FSP costs are derived. We then present updated and improved rules of thumb for changes to the following FSP parameters: asset and income limits, maximum and minimum benefit levels, the benefit reduction rate, and the five FSP deductions.<sup>1</sup>

### **A. METHODOLOGY FOR DERIVING RULES OF THUMB**

The rules of thumb used to estimate the budgetary impact of reforms to the FSP are based on microsimulation model estimates. In this section, we explain how models produce estimates and how these estimates are converted into rules of thumb. We also describe the three microsimulation models we use and the program changes for which we developed rules of thumb.

#### **1. Microsimulation Modeling**

Microsimulation modeling is a means for estimating the budgetary and distributional impacts of a reform to the FSP. The model first processes household-level data to determine each household's eligibility, participation status, and benefit amount under current program rules. It then does the same under new program rules. The difference between the new and old rules in terms of the number of eligible households, participation rates, and benefit amounts, as measured by the model, is an estimate of the impact of changes introduced by the new rules.

OAE uses these estimates to adjust an existing future-year FSP cost estimate. The cost estimate is produced by the Financial Management Division of FCS, which uses an econometric time-series model to predict participation and benefits as a function of forecasts of future macroeconomic conditions and other factors. In some instances, the microsimulation model estimates are used in the

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<sup>1</sup>For previous rules of thumb, see Heiser (1990).

derivation of this time-series model estimate to account for the impact of legislated program changes not included in the time-series model.

If a microsimulation model based on January 1992 data estimates that FSP costs would increase by 3 percent under a given reform, the forecasted estimate could be adjusted upward by 3 percent. (The January 1992 microsimulation model estimate could be used to determine the average household increase in food stamps per participant under the given reform, and forecasted FSP costs could be adjusted upward by this amount for the number of persons forecasted to participate in the FSP after adjusting the dollar impact for inflation and other factors such as changes in the average FSP benefit.) Although microsimulation modeling is a useful, efficient, and relatively fast way to generate impact estimates, the models are not always readily accessible, so when timing is critical and access is limited, OAE uses rules of thumb in much the same way as they use the model estimates.

## **2. Converting Microsimulation Estimates to Rules of Thumb**

A rule of thumb is an estimate of the average change in food stamp benefits per participant for a dollar (or a percentage point) change in a program parameter.<sup>2</sup> Rules of thumb are produced by translating impact estimates from microsimulation models into per participant impact estimates. These estimates are then converted into rules of thumb by dividing the per participant food stamp benefit change by the change in the parameter.

For example, using the April 1994 MATH model, we estimated that increasing the standard deduction by \$20 would increase FSP costs by \$41,708,084 in April 1994. This impact represents a 3.02 percentage increase in FSP costs, and an average increase in food stamps of \$1.98 per participant. This estimate is then divided by the parameter change of \$20, and the resulting rule of

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<sup>2</sup>Rules of thumb may also be expressed as the change in food stamp benefits per *household* and the percentage change in total FSP costs. Rules of thumb expressed in this manner are included in Appendix A.

thumb indicates that a dollar increase in the standard deduction increases food stamp benefits by \$0.0990 per participant. We repeated these calculations for several dollar increases to the standard deduction and for numerous changes to other FSP parameters. The resulting rules of thumb allow OAE to produce a cost estimate for any dollar change in the standard deduction or another parameter (within the valid rule-of-thumb ranges). For any change not exactly represented by a rule of thumb, the rule of thumb closest to that change would be used.

### 3. Three Microsimulation Models

The following three microsimulation models are used to estimate the rules of thumb<sup>3</sup>:

- ***Fiscal Year 1992 QC Minimodel.*** This model operates on administrative data that is collected as part of an ongoing review of food stamp case records. The model contains information on about 58,000 records of participating food stamp units. It is used to estimate the impact of reforms on the current FSP caseload.
- ***April 1994 MATH Model.*** This model operates on household survey data from the March 1991 Current Population Survey (CPS) projected to represent April 1994. The model contains information on about 60,000 households and is used to estimate the impact of reforms on both the current caseload and the nonparticipating population.
- ***January 1992 FOSTERS Model.*** This model operates on household survey data from the Survey of Income and Program Participation (SIPP). The model contains information on about 30,000 households. Its measure of food stamp households' assets makes it particularly useful for examining the impact of changes to asset eligibility guidelines.

Since these microsimulation models are dramatically faster, cheaper, and more efficient than previous versions, we improved the accuracy and robustness of the rules of thumb by (1) expanding the number of point estimates used to develop them, (2) including estimates of the impact of expansive reforms on the nonparticipating population, and (3) developing rules of thumb for eligibility

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<sup>3</sup>The latest version of the MATH model is named the MATH-CPS model and the latest version of the FOSTERS model is named the MATH-SIPP model.

parameters using the FOSTERS and MATH models. Because of the strengths and weaknesses of each model and OAE's past preferences, we used the FOSTERS and MATH models to estimate changes to the asset limits and the vehicular asset threshold, and we used the QC Minimodel and the MATH model to estimate the impact of changes in all other parameters.

#### **4. Changes in FSP Parameters and Corresponding Rules of Thumb**

We reviewed hundreds of proposed reforms considered over the past five years in order to design a set of program changes for which to develop rules of thumb. We also considered FSP legislative history, policy concerns, and initiatives of the administration, Congress, and advocates. The set of program changes for which we developed rules of thumb are described below.<sup>4</sup>

- ***Asset Limits.*** Our set of changes includes incremental dollar increases to the asset guidelines and a few standard, expansive reforms. We developed rules of thumb for expansive reforms only given the political discussion about whether asset limits are unduly restrictive and the policy initiatives to increase self-sufficiency by allowing participants to accumulate financial and vehicular assets. The expansive changes in the Mickey Leland Act of 1993 to the treatment of vehicular assets are included in the set.
- ***Gross and Net Income Limits.*** Since the FSP gross and net income screens have remained unchanged in recent years and are relatively noncontroversial, the set of changes to these limits reflects commonly requested simulations from the past five years (dollar decreases and increases to the screens and elimination of the screens).<sup>5</sup>
- ***Benefit Computation Components (Maximum and Minimum Benefit Levels and the Benefit Reduction Rate).*** The maximum food stamp benefit amounts are currently equal to 103 percent of the Thrifty Food Plan (TFP). We have

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<sup>4</sup>Generally, the rules of thumb for increases to a given parameter may be used to estimate the impact of decreases to the parameter. However, the rules of thumb for changes to the asset and vehicular asset limits should not be used to estimate the impact of setting the limits to zero.

<sup>5</sup>For dollar changes to values that vary by region or household size, the given dollar change refers to a change for a household size of four in the continental United States. The other values were adjusted by the percentage increase represented by this change. This includes changes to the income limits, maximum benefit levels, and the standard and shelter deductions.

developed rules of thumb for estimating the impact of incremental dollar increases of the maximum benefit from 104 to 130 percent of the TFP as well as for decreasing it to 100 percent of the TFP.

The current minimum benefit of \$10 for one- and two-person households and the benefit reduction rate of 30 percent have not changed since the Food Stamp Act of 1977. The changes to the minimum benefit and the benefit reduction rate we included are simple dollar and percentage point increases and decreases, respectively, reflecting past reform requests and proposals from advocacy groups to increase the minimum benefit.

- ***Standard Deduction.*** The standard deduction has not been adjusted since the Food Stamp Act of 1977 (with the exception of indexing). Thus, the set of changes includes dollar increases and decreases to the standard deduction.
- ***Earnings Deduction.*** The current earnings deduction (equal to 20 percent of earnings) was legislated as part of the 1985 Food Security Act. Given the policy goals to promote self-sufficiency and encourage work, it is likely that the earnings deduction will be maintained. In the past, proposed reforms to the earnings deduction have been simple increases and decreases of the 20 percent rate. The reforms for which rules of thumb were developed are of this type.
- ***Medical Deduction.*** The current medical deduction that allows households with elderly or disabled persons to deduct medical expenses greater than \$35 was legislated in the Food Stamp Amendments of 1979 and 1980. The changes to the medical deduction reflect past requests to raise the \$35 threshold and, conversely, to deduct all medical expenses. Our set of changes also includes an estimate of the impact on the FSP of allowing all households to take a medical deduction.
- ***Dependent Care Deduction.*** The dependent care deduction cap was changed in the Hunger Prevention Act of 1988 to \$160 per month per dependent. It was recently changed as part of the Mickey Leland Act of 1993 to match those of the AFDC program--for children younger than 2, the limit is \$200 per dependent, and for all other dependents, the limit is \$175 per dependent. In addition, given the continuing initiatives to help families and encourage work by supporting working parents, the cap may continue to be raised. The changes to this deduction, then, are increases to the cap.
- ***Shelter Deduction.*** In the Mickey Leland Act of 1993, Congress legislated an increase and the eventual removal of the cap on the shelter deduction. These changes are included in the set. In addition, we developed rules of thumb for changes to the shelter expense threshold.

## B. RULE-OF-THUMB ESTIMATES

The rules of thumb we recommend for each type of reform are presented in Table II.1. These rules of thumb represent the average change in food stamp benefits per participant for a dollar or percentage point change in an FSP parameter. Estimates from one model were chosen for each type of reform based on the strengths of the models. Thus, estimates are based on the 1994 MATH model with the exception of the estimates for reforms to the asset limits, which are based on the January 1992 FOSTERS model, and estimates for reforms to the earnings deduction, which are based on the 1992 QC Minimodel.

Tables presenting detailed results, including the simulation results and their corresponding rules of thumb for every reform using each microsimulation model, are contained in Appendix A, Table A.1 (QC Minimodel), Table A.2 (MATH model), and Table A.3 (FOSTERS model). Graphs presenting rules of thumb expressed as changes in food stamp benefits per household and percentage changes in total FSP costs are also included in Appendix A, Figures A.1 through A.14; the figures are grouped by key program changes and illustrate the relationship between FSP parameters and household and total food stamp benefits. The examples below explain how to use Table II.1 and the graphs.

- ***Example 1: Increase the Maximum Benefit by \$18.***  
The proposed reform is to increase the maximum benefit by \$18. (This increase applies to households size four in the continental United States; all other values are increased by the same percentage change.)

***Using Table II.1.*** A dollar increase in the maximum benefit represents a \$0.2664 increase in food stamp benefits per participant. An \$18 increase in the maximum benefit then represents a \$5 increase in food stamps per participant (\$0.2664 times 18).

***Using the Graph, Figure A.5.*** The right y-axis shows that an \$18 increase in the maximum benefit (indicated on the x-axis) represents a 7 percent increase in FSP costs. The left y-axis shows that an \$18 increase in the maximum benefit represents a \$13 increase in food stamps per household.



**TABLE IL1**  
**RULE-OF-THUMB IMPACT ESTIMATES FOR CHANGES TO THE FSP**

Parameter	Reforms	Monthly Dollar Change in Food Stamps Per Participant
<b>Eligibility Screens</b>		
Asset Limit	\$1 Increases	0.0014
Vehicular Asset Limit	\$1 Increases	0.0011
Income Screens (US Size 4)	\$1 Increases	0.0013
(Changes to Net; Gross = 130% Net)	\$1 Decreases	-0.0080
<b>Benefit Computation</b>		
Maximum Benefit (US Size 4)	\$1 Increases	0.2664
	\$1 Decreases	-0.2590
Minimum Benefit	\$1 Increases	0.0383
	\$1 Decreases	-0.0093
Benefit Reduction Rate	1% Increases	-0.8175
	1% Decreases	1.2483
<b>Income Deductions</b>		
Standard Deduction (US)	\$1 Increases	0.0968
	\$1 Decreases	-0.1008
Earnings Deduction	1% Increases	0.1475
	1% Decreases	-0.1692
Medical Deduction Threshold	\$1 Increases	-0.0012
Dependent Care Deduction Cap	\$1 Increases	0.0001
Shelter Deduction (US)		
Cap	\$1 Increases	0.0110
Threshold	1% Increases	-0.1354
	1% Decreases	0.2117

NOTE: Estimates are based on the 1994 MATH Model with the exception of the estimates for reforms to the asset limits, which are based on the January 1992 FOSTERS model, and estimates for reforms to the earnings deduction, which are based on the 1992 QC Minimodel.

- **Example 2: Increase the Benefit Reduction Rate to 0.38.**  
The proposed reform is to increase the benefit reduction rate from 0.30 to 0.38.

**Using Table II.1.** The closest rule-of-thumb estimate to an increase in the benefit reduction rate to 0.38 is an increase to 0.40. This rule of thumb indicates that a percentage point increase in the benefit reduction rate represents a \$0.8175 decrease in food stamp benefits per participant. An 8 percentage point increase in the benefit reduction rate represents a \$7 decrease in food stamps per participant (\$0.8175 times 8).

**Using the Graph, Figure A.7.** The right y-axis shows that an increase in the benefit reduction rate from 0.30 to 0.38 (indicated on the x-axis) represents a 10 percent decrease in FSP costs. The left y-axis shows that this change to the benefit reduction rate represents an \$18 decrease in food stamps per household.

The rules of thumb reveal that a unit change to the maximum benefit, the benefit reduction rate, the standard deduction, the earnings deduction, and the shelter deduction threshold all change food stamp benefits per participant by at least 10 cents; the same change to other parameters has a weaker impact on food stamp benefits.

### **III. RULES OF THUMB FOR CHANGES TO PUBLIC ASSISTANCE PROGRAMS INTERACTING WITH THE FSP**

Since low-income households often participate in more than one public assistance program, changes to programs that interact with the FSP can complicate the ways in which the costs of these programs interact with one another. To calculate the impact of changes to interacting programs on the FSP, OAE uses rules of thumb, which are based on survey and FSP administrative data. In this chapter, we present updated and improved rules of thumb for estimating the impact of changes to interacting programs on the FSP.<sup>6</sup>

#### **A. FOUR MAJOR INTERACTING PUBLIC ASSISTANCE PROGRAMS**

We estimated rules of thumb for four major public assistance programs that interact with the FSP: (1) the Aid to Families With Dependent Children (AFDC) program, (2) the Supplemental Security Income (SSI) program, (3) the Social Security program, and (4) the Unemployment Compensation (UC) program. These programs are the major ones that interact with the FSP because of their scale. The annual benefits paid through each of these programs exceeded \$20 billion in 1993 (U.S. Congress 1994). In addition, a substantial proportion of food stamp households receive cash payments from these sources. On the basis of FSP administrative data from summer 1992, 40 percent of food stamp households received AFDC, 19 percent received SSI, 7 percent received Social Security, and 3 percent received Unemployment Compensation. Other programs that interact with the FSP are either relatively small and/or the overlap with the FSP is minimal.

The rules of thumb for these four programs account for the direct impact of changes to an interacting program on the FSP as well as any "offsetting effects" from other programs. An offsetting effect occurs when a change in benefits issued under one interacting program leads to a change in

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<sup>6</sup>For previous rules of thumb, see Long (1986).

benefits under another interacting program, offsetting the initial change. The AFDC and SSI programs are mutually exclusive, and cash payments from these programs do not affect Social Security or UC benefits. Therefore, changes to the AFDC or SSI programs have only a direct impact on the FSP. Cash payments from Social Security or UC, however, count as income in the AFDC and SSI programs, as well as in the FSP. Therefore, changes to Social Security or UC benefits could lead to offsetting effects if they create changes in either the AFDC or SSI programs.

An example of a change in an interacting program that has offsetting effects is an increase in Social Security benefits. Since the FSP counts Social Security payments as income, an increase in Social Security for food stamp households receiving Social Security payments would cause food stamp benefits to drop. This direct impact on the FSP for those food stamp households that receive Social Security and SSI benefits would be offset by a decrease in SSI benefits.

## B. METHODOLOGY

The methodology for calculating the change in FSP costs resulting from a given change in aggregate benefits paid by an interacting program is expressed in the following formula:

$$\text{Changes in benefits paid by an interacting program (Term \#1)} \times \left[ \begin{array}{cc} \text{Fraction of all interacting program benefits going to FSP households (Term \#2)} & \times \text{Average FSP BRR for households participating in the interacting program (Term \#3)} \end{array} \right] - \sum_i \left\{ \begin{array}{ccc} \text{Fraction of all interacting program benefits going to those that participate in both the FSP and } i\text{th offsetting program (Term \#4)} & \times & \text{Average } i\text{th offsetting program BRR for those participating in FSP (Term \#5)} & \times & \text{Average FSP BRR for households in the interacting program and in the } i\text{th offsetting program (Term \#6)} \end{array} \right\}$$

Performing the operation within the brackets, we produced a rule of thumb for each of the four interacting programs. This rule reflects the change in food stamps that is proportionate to each dollar change in the benefits issued under the interacting program. It is a function of the fraction of interacting program benefits going to food stamp households (Term #2) and food stamp households in offsetting programs (Term #4), and of various benefit reduction rates (BRRs) for these households

(Terms #3, #5, and #6). To estimate these terms in the formula, we used the most recent and robust data on the distribution of program benefits and the characteristics of food stamp households. The change in FSP benefits caused by a change in one of these interacting programs is estimated by multiplying the appropriate rule of thumb by the given aggregate change in benefits paid by the interacting program (Term #1). The terms in the brackets, the data we used to estimate each term, and the resulting estimates, are explained below.

#### **1. Information on Overlapping Benefits (Terms #2 and #4)**

Terms #2 and #4 represent the fraction of interacting program benefits going to food stamp households as follows:

- **Term #2:** Fraction of All Interacting Program Benefits Going to Food Stamp Households
- **Term #4:** Fraction of All Interacting Program Benefits Going to Food Stamp Households in Offsetting Programs

These two terms account for the fact that only food stamp households participating in the given interacting program will be affected by changes to the interacting program. The measure of program interaction is the fraction of interacting program *benefits* going to food stamp households rather than the fraction of interacting program *participants* who are in food stamp households. As a result, the formula does not assume that the average interacting program benefit within subgroups of the interacting program caseload (such as food stamp households) is the same as the average benefit for the entire interacting program caseload.

The estimates of the fraction of interacting program benefits going to food stamp households, presented in Table III.1, are based on the January 1992 SIPP Eligibility File.<sup>7</sup> This file includes

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<sup>7</sup>For more information about this file, see Sykes (1994).

recent data from a combined sample of 33,731 households interviewed in the 1990 Panel Wave 7 and the 1991 Panel Wave 4. It provides information on multiple program participation, using the same unit of analysis, reference period, and questionnaire design for each program.<sup>8</sup>

TABLE III.1  
SIPP-BASED MEASURES OF OVERLAP IN PROGRAM BENEFITS

Program	Aid to Families With Dependent Children (AFDC)	Supplemental Security Income (SSI)	Social Security	Unemployment Compensation (UC)
Total Program Benefits	\$1,297,044,356	\$1,286,334,916	\$21,077,551,385	\$2,918,231,930
Percentage of Benefits to Food Stamp Units	90.06%	38.70%	3.35%	6.73%
Percentage of Benefits to Food Stamp/AFDC Units	n.a.	n.a.	0.28%	0.76%
Percentage of Benefits to Food Stamp/SSI Units	n.a.	n.a.	1.20%	0.16%

SOURCE: January 1992 SIPP Eligibility File.

n.a. = not applicable.

The program overlap is largest between the AFDC program and the FSP: 90 percent of all AFDC benefits were received by persons also participating in the FSP. The overlap between the FSP and the SSI program is significantly smaller but still substantial: 39 percent of all SSI benefits were

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<sup>8</sup>One disadvantage of household surveys such as SIPP is that households underreport participation in public assistance programs. A comparison of SIPP and administrative program data is contained in Appendix B. For the purpose of developing rules of thumb, we are concerned with the overlap among the interacting programs and not with absolute participation or benefit levels. While the underreporting of program participation in SIPP may affect the accuracy of the estimates of program overlap, we do not have independent measures of program overlap with which to compare the SIPP estimates, with the exception of the overlap between the FSP and the AFDC program. Based on 1991 quality control data, 87 percent of AFDC units received food stamps (DHHS 1991). This estimate is relatively close to the benefit overlap estimate of 90 percent reported in SIPP.

received by persons also participating in the FSP. Approximately 3 and 7 percent of Social Security and UC benefits, respectively, were received by food stamp participants.

## **2. Benefit Reduction Rates (Terms #3, #5, and #6)**

Terms #3, #5, and #6 in the formula represent BRRs as follows:

- **Term #3:** Average FSP BRR for Households Participating in the Interacting Program
- **Term #5:** Average Offsetting Program BRR for Food Stamp Households
- **Term #6:** Average FSP BRR for Households in Both the Interacting Program and in the Offsetting Program

The FSP BRRs (Terms #3 and #6) are estimates of the rate at which food stamp benefits change in response to a change in benefits from an interacting program. The first BRR (Term #3) applies to households in the interacting program, and the second (Term #6) applies to households in the interacting and offsetting programs. The third BRR (Term #5) is an estimate of the rate at which benefits for the offsetting program change in response to a change in benefits from an interacting program. For example, one BRR would express the rate at which SSI benefits change in response to changes in Social Security benefits.

The FSP BRRs (Terms #3 and #6) vary across food stamp households because of the structure of the excess shelter expense deduction, the treatment of households with zero net income, and the minimum benefit levels for households with only one or two members. Therefore, a dollar change in unearned income does not always translate into a dollar change in net income. For example, the BRR for households without a shelter deduction is 0.30, but for households above the shelter deduction cap, the BRR is 0.45. To obtain these BRRs, we used the 1992 QC Minimodel, increasing gross income by \$10 and computing the BRRs for the groups of food stamp households as defined by the other programs in which they participate (Table III.2). The rates range from 0.31

for food stamp households receiving Social Security to 0.37 for food stamp households receiving AFDC and UC benefits.

TABLE III.2  
BENEFIT REDUCTION RATES

Other Programs in Which FSP Units Participate	Benefit Reduction Rate
Aid to Families With Dependent Children (AFDC)	0.3244
Supplemental Security Income (SSI)	0.3509
Social Security	0.3130
Unemployment Compensation (UC)	0.3328
AFDC and Social Security	0.3492
AFDC and UC	0.3688
SSI and Social Security	0.3383
SSI and UC	0.3450
All FSP Households	0.2863

SOURCE: Fiscal Year 1992 QC Minimodel simulation of increasing gross income by \$10.

Since offsetting effects happen only when changes to the Social Security or UC programs affect AFDC or SSI benefits, the BRR for offsetting programs (Term #5) applies to the rate at which AFDC or SSI benefits change as Social Security or UC benefits change. In estimating the current rules of thumb, we assumed that these BRRs for offsetting programs are 1 in all cases. This assumption is reasonable because an examination of the benefit formulas for the AFDC and SSI programs shows that generally, a dollar change in unearned income translates into a dollar change in benefits. Although more than one set of offsetting effects may occur, we assume that these additional offsets have minimal impacts; therefore, we account for only one set of offsetting effects.



**C. RULES OF THUMB FOR CHANGES TO PROGRAMS THAT INTERACT WITH THE FSP**

The formula for calculating the rules of thumb for each of the four interacting programs, the estimates of the terms in the formula, and the rules of thumb are presented in Table III.3. The rules of thumb show that a change in AFDC benefits has the largest impact on the FSP: for every dollar change in AFDC benefits, food stamp benefits change by 29.2 cents. The rules of thumb for SSI, Social Security, and UC are 13.6, 0.5, and 1.9 percent, respectively. To estimate the impact of changes to the interacting program on the FSP, OAE would multiply the rule of thumb by the change in the interacting program's benefits. For example, if AFDC benefits increase by \$100 million, the estimated decrease in the FSP benefits is \$29.2 million (29.2 percent times \$100 million).

TABLE III.3

**RULES OF THUMB FOR CHANGES TO PROGRAMS  
THAT INTERACT WITH THE FSP**

$$\begin{array}{c} \text{Changes in} \\ \text{benefits} \\ \text{paid by an} \\ \text{interacting} \\ \text{program} \\ \text{(Term \#1)} \end{array} \times \left[ \begin{array}{c} \text{Fraction of all} \\ \text{interacting program} \\ \text{benefits going to} \\ \text{FSP households} \\ \text{(Term \#2)} \end{array} \times \begin{array}{c} \text{Average FSP} \\ \text{BRR for} \\ \text{households} \\ \text{participating in} \\ \text{the interacting} \\ \text{program} \\ \text{(Term \#3)} \end{array} - \sum_i \left\{ \begin{array}{c} \text{Fraction of all} \\ \text{interacting program} \\ \text{benefits going to} \\ \text{those who} \\ \text{participate in both} \\ \text{the FSP and } i\text{th} \\ \text{offsetting program} \\ \text{(Term \#4)} \end{array} \times \begin{array}{c} \text{Average } i\text{th} \\ \text{offsetting} \\ \text{program BRR} \\ \text{for} \\ \text{those} \\ \text{participating} \\ \text{in FSP} \\ \text{(Term \#5)} \end{array} \times \begin{array}{c} \text{Average FSP} \\ \text{BRR for} \\ \text{households in} \\ \text{the interacting} \\ \text{program and in} \\ \text{the } i\text{th} \\ \text{offsetting} \\ \text{program} \\ \text{(Term \#6)} \end{array} \right\} \right]$$

**Program Overlap and BRR Estimates**

	Term #2 <sup>a</sup>	Term #3 <sup>b</sup>		Term #4 <sup>a</sup>	Term #5	Term #6 <sup>b</sup>
AFDC	0.9006	0.3244				
SSI	0.3870	0.3509				
Social Security	0.0335	0.3130	AFDC	0.0028	1.000	0.3492
			SSI	0.0120	1.000	0.3383
Unemployment Compensation	0.0673	0.3328	AFDC	0.0076	1.000	0.3688
			SSI	0.0016	1.000	0.3450

**Rules of Thumb**

AFDC	29.2%
SSI	13.6%
Social Security	0.5%
Unemployment Compensation	1.9%

<sup>a</sup>The source of program benefit overlap estimates (Terms #2 and #4) is the January 1992 SIPP Eligibility File.

<sup>b</sup>The source of the average FSP BRRs (Terms #3 and #6) is the Fiscal Year 1992 QC Minimodel.

<sup>c</sup>The average BRRs for interacting programs (Term #5) are assumed to be 1.

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## **APPENDIX A**

### **RULES OF THUMB FOR CHANGES TO THE FSP: DETAILED TABLES AND GRAPHS**

TABLE A.1

**RULES OF THUMB FOR CHANGES TO THE FSP:  
FISCAL YEAR 1992 QC MINIMODEL RESULTS**

Parameter Change	Total FSP Benefits (Dollars)	Percentage Impacts		Dollar Impacts			
		Percentage Change in Total FSP Benefits (Percent)	Percentage Change in FSP Benefits Per Unit (\$1 or 1%) Parameter Change (Percent)	Change in Food Stamps Per:		Average Change in Food Stamps Per Unit (\$1 or 1%) Change in Parameter Per:	
				Baselaw Household (Dollars)	Baselaw Participant (Dollars)	Baselaw Household (Dollars)	Baselaw Participant (Dollars)
<b>Baselaw: FY 1992 QC Minimodel</b>	1,706,910,625			All Households= 10,018,259	All Persons= 25,654,630		
<b>Gross and Net Income Screens</b>							
Baselaw	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Decrease Net \$100	1,697,357,497	-0.56%	-0.0056%	-0.95	-0.37	-0.0095	-0.0037
Decrease Net \$200	1,676,209,539	-1.80%	-0.0090%	-3.06	-1.20	-0.0153	-0.0060
Decrease Net \$300	1,639,862,697	-3.93%	-0.0131%	-6.69	-2.61	-0.0223	-0.0087
Decrease Net \$400	1,587,913,159	-6.97%	-0.0174%	-11.88	-4.64	-0.0297	-0.0116
Decrease Net \$500	1,513,234,007	-11.35%	-0.0227%	-19.33	-7.55	-0.0387	-0.0151
<b>Maximum Benefit</b>							
Decrease \$11 (100% TFP)	1,637,391,448	-4.07%	-0.3703%	-6.94	-2.71	-0.6308	-0.2463
Baselaw (103% TFP)	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase \$7 (105% TFP)	1,754,449,005	2.79%	0.3979%	4.75	1.85	0.6779	0.2647
Increase \$25 (110% TFP)	1,874,670,580	9.83%	0.3931%	16.75	6.54	0.6698	0.2616
Increase \$43 (115% TFP)	1,992,242,806	16.72%	0.3888%	28.48	11.12	0.6624	0.2587
Increase \$61 (120% TFP)	2,110,359,448	23.64%	0.3875%	40.27	15.73	0.6602	0.2578
Increase \$79 (125% TFP)	2,229,283,195	30.60%	0.3874%	52.14	20.36	0.6600	0.2577
Increase \$97 (130% TFP)	2,349,146,316	37.63%	0.3879%	64.11	25.03	0.6609	0.2581
<b>Minimum Benefit</b>							
\$0 for Units Size 1 and 2	1,704,076,568	-0.17%	-0.0166%	-0.28	-0.11	-0.0283	-0.0110
\$10 for Units Size 1 and 2 (Baselaw)	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
\$20 for Units Size 1 and 2	1,711,506,476	0.27%	0.0269%	0.46	0.18	0.0459	0.0179
\$30 for Units Size 1 and 2	1,719,223,790	0.72%	0.0361%	1.23	0.48	0.0615	0.0240
\$40 for Units Size 1 and 2	1,729,316,803	1.31%	0.0438%	2.24	0.87	0.0746	0.0291
\$50 for Units Size 1 and 2	1,741,709,745	2.04%	0.0510%	3.47	1.36	0.0868	0.0339
\$10 for All Sizes	1,706,918,186	0.00%	n.a.	0.00	0.00	n.a.	n.a.
<b>Benefit Reduction Rate</b>							
0.00	2,473,434,968	44.91%	1.4969%	76.51	29.88	2.5504	0.9960
0.10	2,213,000,413	29.65%	1.4825%	50.52	19.73	2.5258	0.9864
0.20	1,956,889,575	14.65%	1.4645%	24.95	9.74	2.4952	0.9744
0.30 (Baselaw)	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
0.40	1,485,391,542	-12.98%	-1.2978%	-22.11	-8.63	-2.2112	-0.8635
0.50	1,308,786,885	-23.32%	-1.1662%	-39.74	-15.52	-1.9870	-0.7759
<b>Standard Deduction</b>							
Baselaw	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase \$10	1,734,746,763	1.63%	0.1631%	2.78	1.09	0.2779	0.1085
Increase \$20	1,762,115,735	3.23%	0.1617%	5.51	2.15	0.2755	0.1076
Increase \$30	1,789,149,865	4.82%	0.1606%	8.21	3.21	0.2736	0.1069
Increase \$40	1,815,670,963	6.37%	0.1593%	10.86	4.24	0.2714	0.1060
Increase \$50	1,841,642,110	7.89%	0.1579%	13.45	5.25	0.2690	0.1050
Decrease \$10	1,678,700,365	-1.65%	-0.1653%	-2.82	-1.10	-0.2816	-0.1100
Decrease \$20	1,650,247,588	-3.32%	-0.1660%	-5.66	-2.21	-0.2828	-0.1104
Decrease \$30	1,621,812,847	-4.99%	-0.1662%	-8.49	-3.32	-0.2831	-0.1106
Decrease \$40	1,593,438,979	-6.65%	-0.1662%	-11.33	-4.42	-0.2832	-0.1106
Decrease \$50	1,565,220,440	-8.30%	-0.1660%	-14.14	-5.52	-0.2829	-0.1105
<b>Earnings Deduction</b>							
No Earnings Deduction	1,621,157,136	-5.02%	-0.2512%	-8.56	-3.34	-0.4280	-0.1671
10% of Earnings	1,662,982,269	-2.57%	-0.2574%	-4.38	-1.71	-0.4385	-0.1712
20% of Earnings (Baselaw)	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
30% of Earnings	1,750,297,542	2.54%	0.2542%	4.33	1.69	0.4331	0.1691
40% of Earnings	1,792,999,159	5.04%	0.2522%	8.59	3.36	0.4297	0.1678
50% of Earnings	1,833,618,518	7.42%	0.2474%	12.65	4.94	0.4216	0.1646
60% of Earnings	1,869,760,214	9.54%	0.2385%	16.26	6.35	0.4064	0.1587
70% of Earnings	1,898,658,106	11.23%	0.2247%	19.14	7.47	0.3828	0.1495
80% of Earnings	1,917,179,547	12.32%	0.2053%	20.99	8.20	0.3498	0.1366
90% of Earnings	1,927,364,849	12.92%	0.1845%	22.01	8.59	0.3144	0.1228
100% of Earnings	1,933,969,340	13.30%	0.1663%	22.66	8.85	0.2833	0.1106

TABLE A.1 (continued)

Parameter Change	Total FSP Benefits (Dollars)	Percentage Impacts		Dollar Impacts			
		Percentage Change in Total FSP Benefits (Percent)	Percentage Change in FSP Benefits Per Unit (\$1 or 1%) Parameter Change (Percent)	Change in Food Stamps Per		Average Change in Food Stamps Per Unit (\$1 or 1%) Change in Parameter Per	
				Baselaw Household (Dollars)	Baselaw Participant (Dollars)	Baselaw Household (Dollars)	Baselaw Participant (Dollars)
<b>Baselaw: FY 1992 QC Minimodel</b>	1,706,910,625			All Households= 10,018,259	All Persons= 25,654,630		
<b>Medical Deduction</b>							
No Medical Deduction	1,700,725,429	-0.36%	n.a.	-0.62	-0.24	n.a.	n.a.
Increase Threshold \$165 (to \$200)	1,701,751,206	-0.30%	-0.0018%	-0.52	-0.20	-0.0031	-0.0012
Increase Threshold \$65 (to \$100)	1,703,496,464	-0.20%	-0.0031%	-0.34	-0.13	-0.0052	-0.0020
Increase Threshold \$15 (to \$50)	1,705,854,332	-0.06%	-0.0041%	-0.11	-0.04	-0.0070	-0.0027
Threshold=\$35 (Baselaw)	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Deduct All Medical Expenses	1,710,072,105	0.19%	n.a.	0.32	0.12	n.a.	n.a.
All Households Deduct Expenses >\$35	1,708,881,197	0.12%	n.a.	0.20	0.08	n.a.	n.a.
<b>Dependent Care Deduction</b>							
No Dependent Care Deduction	1,693,384,026	-0.79%	n.a.	-1.35	-0.53	n.a.	n.a.
Baselaw (Cap = \$160 per Dependent)	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase Cap \$40 (\$200;\$175)	1,706,982,580	0.00%	0.0001%	0.01	0.00	0.0002	0.0001
Increase Cap \$140 (\$300;\$275)	1,707,080,095	0.01%	0.0001%	0.02	0.01	0.0001	0.0000
No Dependent Care Cap	1,707,085,824	0.01%	n.a.	0.02	0.01	n.a.	n.a.
<b>Shelter Deduction</b>							
No Shelter Deduction	1,536,945,930	-9.96%	n.a.	-16.97	-6.63	n.a.	n.a.
Baselaw	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase Cap \$37	1,720,818,844	0.81%	0.0220%	1.39	0.54	0.0375	0.0147
Increase Cap \$53	1,725,578,166	1.09%	0.0206%	1.86	0.73	0.0352	0.0137
No Cap	1,750,574,113	2.56%	n.a.	4.36	1.70	n.a.	n.a.
<b>Deduct Expenses &gt; X% of Net Income</b>							
X=0	1,925,685,056	12.82%	0.2563%	21.84	8.53	0.4368	0.1706
X=25	1,819,698,297	6.61%	0.2643%	11.26	4.40	0.4503	0.1759
X=50 (Baselaw)	1,706,910,625	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
X=75	1,621,097,108	-5.03%	-0.2011%	-8.57	-3.34	-0.3426	-0.1338
X=100	1,564,997,349	-8.31%	-0.1663%	-14.17	-5.53	-0.2833	-0.1106

n.a. = not applicable

TABLE A.2

RULES OF THUMB FOR CHANGES TO THE FSP:  
APRIL 1994 MATH MODEL RESULTS

Parameter Change	Total FSP Benefits (Dollars)	Percentage Impacts		Dollar Impacts			
		Percentage Change in Total FSP Benefits (Percent)	Percentage Change in FSP Benefits Per Unit (\$1 or 1%) Parameter Change (Percent)	Change in Food Stamps Per:		Average Change in Food Stamps Per Unit (\$1 or 1%) Change in Parameter Per:	
				Baselaw Household (Dollars)	Baselaw Participant (Dollars)	Baselaw Household (Dollars)	Baselaw Participant (Dollars)
<b>Baselaw: April 1994 MATH Model</b>	1,379,040,642			All Households= 8,004,307	All Persons= 21,072,817		
<b>Asset Limits</b>							
\$2000/\$3000 (Baselaw)	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase \$1000 (\$3000/\$4000)	1,440,960,903	4.49%	0.0045%	7.74	2.94	0.0077	0.0029
Increase \$2000 (\$4000/\$5000)	1,490,420,601	8.08%	0.0040%	13.92	5.29	0.0070	0.0026
Increase \$3000 (\$5000/\$6000)	1,523,892,305	10.50%	0.0035%	18.10	6.87	0.0060	0.0023
Increase \$4000 (\$6000/\$7000)	1,552,354,434	12.57%	0.0031%	21.65	8.22	0.0054	0.0021
Increase \$5000 (\$7000/\$8000)	1,581,262,989	14.66%	0.0029%	25.26	9.60	0.0051	0.0019
Increase \$6000 (\$8000/\$9000)	1,598,575,221	15.92%	0.0027%	27.43	10.42	0.0046	0.0017
Increase \$7000 (\$9000/\$10,000)	1,613,243,713	16.98%	0.0024%	29.26	11.11	0.0042	0.0016
No Asset Limits	1,742,332,532	26.34%	n.a.	45.39	17.24	n.a.	n.a.
One Asset Limit = \$3000	1,436,220,994	4.15%	n.a.	7.14	2.71	n.a.	n.a.
<b>Vehicular Assets</b>							
FMV Threshold = \$4500 (Baselaw)	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase FMV \$50 (FMV=\$4550)	1,379,567,572	0.04%	0.0008%	0.07	0.03	0.0013	0.0005
Increase FMV \$100 (FMV=\$4600)	1,383,398,272	0.32%	0.0032%	0.54	0.21	0.0054	0.0021
Increase FMV \$500 (FMV=\$5000)	1,393,845,448	1.07%	0.0021%	1.85	0.70	0.0037	0.0014
Increase FMV \$1500 (FMV=\$6000)	1,425,888,753	3.40%	0.0023%	5.85	2.22	0.0039	0.0015
Increase FMV \$2500 (FMV=\$7000)	1,447,387,136	4.96%	0.0020%	8.54	3.24	0.0034	0.0013
Exclude 1st Vehicle	1,529,790,212	10.93%	n.a.	18.83	7.15	n.a.	n.a.
Exclude All Vehicles	1,618,729,185	17.38%	n.a.	29.94	11.37	n.a.	n.a.
<b>Gross and Net Income Screens</b>							
Baselaw	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase Net \$100	1,384,220,066	0.38%	0.0038%	0.65	0.25	0.0065	0.0025
Increase Net \$200	1,385,438,070	0.46%	0.0023%	0.80	0.30	0.0040	0.0015
Increase Net \$300	1,385,925,725	0.50%	0.0017%	0.86	0.33	0.0029	0.0011
Increase Net \$400	1,386,026,074	0.51%	0.0013%	0.87	0.33	0.0022	0.0008
Increase Net \$500	1,386,186,898	0.52%	0.0010%	0.89	0.34	0.0018	0.0007
No Net or Gross Screens	1,388,383,630	0.68%	n.a.	1.17	0.44	n.a.	n.a.
Decrease Net \$100	1,369,331,437	-0.70%	-0.0070%	-1.21	-0.46	-0.0121	-0.0046
Decrease Net \$200	1,353,118,159	-1.88%	-0.0094%	-3.24	-1.23	-0.0162	-0.0062
Decrease Net \$300	1,330,723,731	-3.50%	-0.0117%	-6.04	-2.29	-0.0201	-0.0076
Decrease Net \$400	1,299,142,970	-5.79%	-0.0145%	-9.98	-3.79	-0.0250	-0.0095
Decrease Net \$500	1,252,503,425	-9.18%	-0.0184%	-15.81	-6.00	-0.0316	-0.0120
<b>Maximum Benefit</b>							
Decrease \$11 (100% TFP)	1,319,015,363	-4.35%	-0.3957%	-7.50	-2.85	-0.6817	-0.2590
Baselaw (103% TFP)	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase \$7 (105% TFP)	1,418,147,135	2.84%	0.4051%	4.89	1.86	0.6980	0.2651
Increase \$25 (110% TFP)	1,518,087,494	10.08%	0.4033%	17.37	6.60	0.6949	0.2639
Increase \$43 (115% TFP)	1,618,304,229	17.35%	0.4035%	29.89	11.35	0.6952	0.2640
Increase \$61 (120% TFP)	1,721,431,599	24.83%	0.4070%	42.78	16.25	0.7012	0.2664
Increase \$79 (125% TFP)	1,825,878,940	32.40%	0.4102%	55.82	21.20	0.7066	0.2684
Increase \$97 (130% TFP)	1,932,283,386	40.12%	0.4136%	69.12	26.25	0.7126	0.2707
<b>Minimum Benefit</b>							
\$0 for Units Size 1 and 2	1,377,077,056	-0.14%	-0.0142%	-0.25	-0.09	-0.0245	-0.0093
\$10 for Units Size 1 and 2 (Baselaw)	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
\$20 for Units Size 1 and 2	1,385,520,454	0.47%	0.0470%	0.81	0.31	0.0810	0.0307
\$30 for Units Size 1 and 2	1,393,851,863	1.07%	0.0537%	1.85	0.70	0.0925	0.0351
\$40 for Units Size 1 and 2	1,404,756,646	1.86%	0.0622%	3.21	1.22	0.1071	0.0407
\$50 for Units Size 1 and 2	1,418,286,545	2.85%	0.0711%	4.90	1.86	0.1226	0.0466
\$10 for All Sizes	1,379,405,754	0.03%	n.a.	0.05	0.02	n.a.	n.a.
<b>Benefit Reduction Rate</b>							
0.00	2,231,306,889	61.80%	2.0600%	106.48	40.44	3.5492	1.3481
0.10	1,910,831,965	38.56%	1.9281%	66.44	25.24	3.3219	1.2618
0.20	1,618,214,412	17.34%	1.7343%	29.88	11.35	2.9881	1.1350
0.30 (Baselaw)	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
0.40	1,194,695,198	-13.37%	-1.3368%	-23.03	-8.75	-2.3031	-0.8748
0.50	1,058,661,826	-23.23%	-1.1616%	-40.03	-15.20	-2.0013	-0.7602

TABLE A.2 (continued)

Parameter Change	Total FSP Benefits (Dollars)	Percentage Impacts		Dollar Impacts			
		Percentage Change in Total FSP Benefits (Percent)	Percentage Change in FSP Benefits Per Unit (\$1 or 1%) Parameter Change (Percent)	Change in Food Stamps Per:		Average Change in Food Stamps Per Unit (\$1 or 1%) Change in Parameter Per:	
				Baselaw Household (Dollars)	Baselaw Participant (Dollars)	Baselaw Household (Dollars)	Baselaw Participant (Dollars)
<b>Baselaw: April 1994 MATH Model</b>	1,379,040,642			All Households= 8,004,307	All Persons= 21,072,817		
<b>Standard Deduction</b>							
Baselaw	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase \$10	1,400,014,723	1.52%	0.1521%	2.62	1.00	0.2620	0.0995
Increase \$20	1,420,748,726	3.02%	0.1512%	5.21	1.98	0.2605	0.0990
Increase \$30	1,441,401,742	4.52%	0.1507%	7.79	2.96	0.2597	0.0986
Increase \$40	1,461,980,014	6.01%	0.1504%	10.36	3.94	0.2590	0.0984
Increase \$50	1,481,933,767	7.46%	0.1492%	12.85	4.88	0.2571	0.0977
Decrease \$10	1,357,819,534	-1.54%	-0.1539%	-2.65	-1.01	-0.2651	-0.1007
Decrease \$20	1,336,247,974	-3.10%	-0.1552%	-5.35	-2.03	-0.2673	-0.1015
Decrease \$30	1,315,918,679	-4.58%	-0.1526%	-7.89	-3.00	-0.2629	-0.0998
Decrease \$40	1,294,319,578	-6.14%	-0.1536%	-10.58	-4.02	-0.2646	-0.1005
Decrease \$50	1,272,292,905	-7.74%	-0.1548%	-13.34	-5.07	-0.2667	-0.1013
<b>Earnings Deduction</b>							
No Earnings Deduction	1,288,759,827	-6.55%	-0.3273%	-11.28	-4.28	-0.5640	-0.2142
10% of Earnings	1,329,996,187	-3.56%	-0.3556%	-6.13	-2.33	-0.6127	-0.2327
20% of Earnings (Baselaw)	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
30% of Earnings	1,427,153,883	3.49%	0.3489%	6.01	2.28	0.6011	0.2283
40% of Earnings	1,477,115,466	7.11%	0.3556%	12.25	4.65	0.6126	0.2327
50% of Earnings	1,530,649,294	10.99%	0.3665%	18.94	7.19	0.6314	0.2398
60% of Earnings	1,585,769,175	14.99%	0.3748%	25.83	9.81	0.6457	0.2453
70% of Earnings	1,637,649,669	18.75%	0.3751%	32.31	12.27	0.6462	0.2454
80% of Earnings	1,674,544,404	21.43%	0.3571%	36.92	14.02	0.6153	0.2337
90% of Earnings	1,698,420,520	23.16%	0.3309%	39.90	15.16	0.5700	0.2165
100% of Earnings	1,717,803,924	24.57%	0.3071%	42.32	16.08	0.5290	0.2009
<b>Medical Deduction</b>							
No Medical Deduction	1,376,198,261	-0.21%	n.a.	-0.36	-0.13	n.a.	n.a.
Increase Threshold \$165 (to \$200)	1,376,589,799	-0.18%	-0.0011%	-0.31	-0.12	-0.0019	-0.0007
Increase Threshold \$65 (to \$100)	1,377,415,944	-0.12%	-0.0018%	-0.20	-0.08	-0.0031	-0.0012
Increase Threshold \$15 (to \$50)	1,378,532,059	-0.04%	-0.0025%	-0.06	-0.02	-0.0042	-0.0016
Threshold=\$35 (Baselaw)	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Deduct All Medical Expenses	1,380,930,039	0.14%	n.a.	0.24	0.09	n.a.	n.a.
All Households Deduct Expenses >\$35	1,379,611,914	0.04%	n.a.	0.07	0.03	n.a.	n.a.
<b>Dependent Care Deduction</b>							
No Dependent Care Deduction	1,371,029,719	-0.58%	n.a.	-1.00	-0.38	n.a.	n.a.
Baselaw (Cap = \$160 per Dependent)	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase Cap \$40 (\$200;\$175)	1,379,115,122	0.01%	0.0001%	0.01	0.00	0.0002	0.0001
Increase Cap \$140 (\$300;\$275)	1,379,311,364	0.02%	0.0001%	0.03	0.01	0.0002	0.0001
No Dependent Care Cap	1,379,437,284	0.03%	n.a.	0.05	0.02	n.a.	n.a.
<b>Shelter Deduction</b>							
No Shelter Deduction	1,231,230,241	-10.72%	n.a.	-18.47	-7.01	n.a.	n.a.
Baselaw	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase Cap \$37	1,387,273,505	0.60%	0.0161%	1.03	0.39	0.0278	0.0106
Increase Cap \$53	1,391,923,952	0.93%	0.0176%	1.61	0.61	0.0304	0.0115
No Cap	1,421,532,222	3.08%	n.a.	5.31	2.02	n.a.	n.a.
<b>Deduct Expenses &gt; X% of Net Income</b>							
X=0	1,610,516,191	16.79%	0.3357%	28.92	10.98	0.5784	0.2197
X=25	1,486,323,835	7.78%	0.3112%	13.40	5.09	0.5361	0.2036
X=50 (Baselaw)	1,379,040,642	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
X=75	1,300,591,467	-5.69%	-0.2275%	-9.80	-3.72	-0.3920	-0.1489
X=100	1,250,653,601	-9.31%	-0.1862%	-16.04	-6.09	-0.3208	-0.1219

n.a. = not applicable.



TABLE A.3

**RULES OF THUMB FOR CHANGES TO THE FSP:  
JANUARY 1992 FOSTERS RESULTS**

Parameter Change	Total FSP Benefits (Dollars)	Percentage Impacts		Dollar Impacts			
		Percentage Change in Total FSP Benefits (Percent)	Percentage Change in FSP Benefits Per Unit (\$1 or 1%) Parameter Change (Percent)	Change in Food Stamps Per:		Average Change in Food Stamps Per Unit (\$1 or 1%) Change in Parameter Per	
				Baselaw Household (Dollars)	Baselaw Participant (Dollars)	Baselaw Household (Dollars)	Baselaw Participant (Dollars)
<b>Baselaw: January 1992 FOSTERS</b>	1,679,790,089			All Households= 9,629,814	All Persons= 24,548,929		
<b>Asset Limits</b>							
\$2000/\$3000 (Baselaw)	1,679,790,089	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase \$1000 (\$3000/\$4000)	1,726,902,543	2.80%	0.0028%	4.89	1.92	0.0049	0.0019
Increase \$2000 (\$4000/\$5000)	1,759,133,469	4.72%	0.0024%	8.24	3.23	0.0041	0.0016
Increase \$3000 (\$5000/\$6000)	1,788,924,262	6.50%	0.0022%	11.33	4.45	0.0038	0.0015
Increase \$4000 (\$6000/\$7000)	1,810,141,774	7.76%	0.0019%	13.54	5.31	0.0034	0.0013
Increase \$5000 (\$7000/\$8000)	1,827,923,857	8.82%	0.0018%	15.38	6.03	0.0031	0.0012
Increase \$6000 (\$8000/\$9000)	1,842,532,697	9.69%	0.0016%	16.90	6.63	0.0028	0.0011
Increase \$7000 (\$9000/\$10,000)	1,860,388,608	10.75%	0.0015%	18.75	7.36	0.0027	0.0011
No Asset Limits	2,062,565,864	22.79%	n.a	39.75	15.59	n.a	n.a
One Asset Limit = \$3000	1,721,291,061	2.47%	n.a	4.31	1.69	n.a	n.a
<b>Vehicular Assets</b>							
FMV = \$4500 (Baselaw)	1,679,790,089	0.00%	0.0000%	0.00	0.00	0.0000	0.0000
Increase FMV \$50 (FMV=\$4550)	1,680,206,782	0.02%	0.0005%	0.04	0.02	0.0009	0.0003
Increase FMV \$100 (FMV=\$4600)	1,686,355,920	0.39%	0.0039%	0.68	0.27	0.0068	0.0027
Increase FMV \$500 (FMV=\$5000)	1,693,507,635	0.82%	0.0016%	1.42	0.56	0.0028	0.0011
Increase FMV \$1500 (FMV=\$6000)	1,705,719,024	1.54%	0.0010%	2.69	1.06	0.0018	0.0007
Increase FMV \$2500 (FMV=\$7000)	1,711,844,582	1.91%	0.0008%	3.33	1.31	0.0013	0.0005
Exclude 1st Vehicle	1,759,744,842	4.76%	n.a	8.30	3.26	n.a	n.a
Exclude All Vehicles	1,818,641,772	8.27%	n.a	14.42	5.66	n.a	n.a

n.a. = not applicable.

**FIGURE A.1**  
**ASSET LIMITS**

29

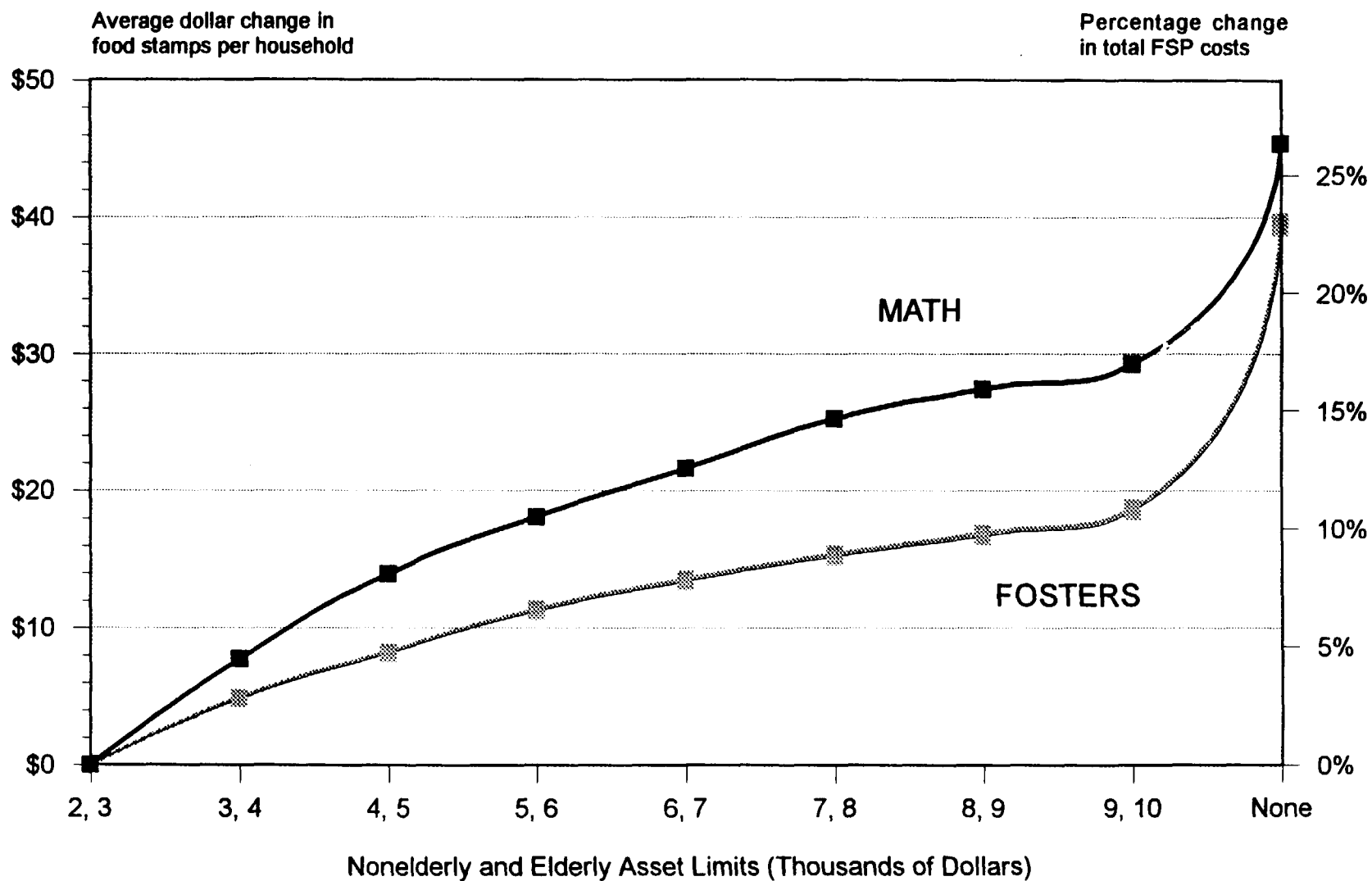
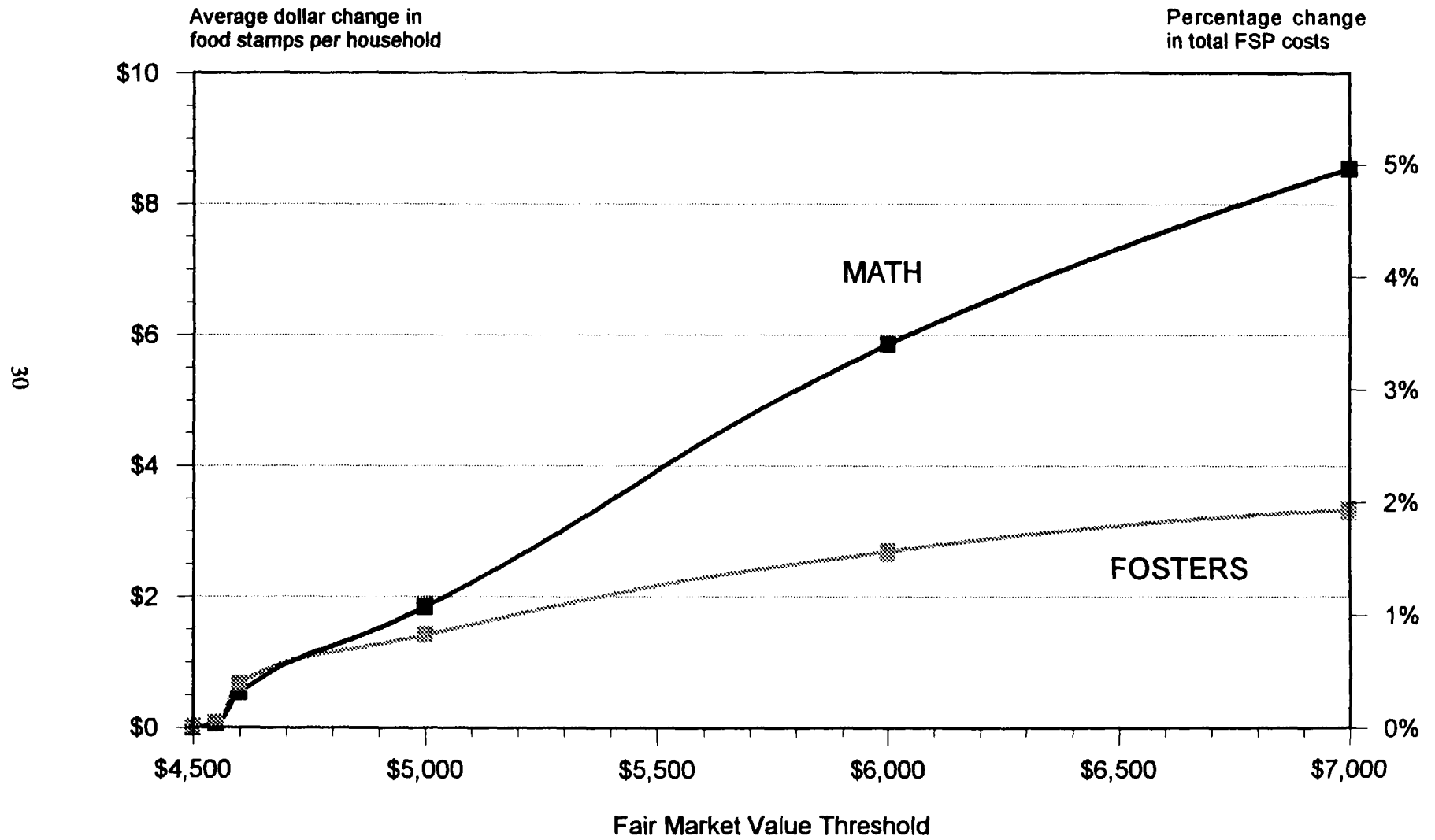
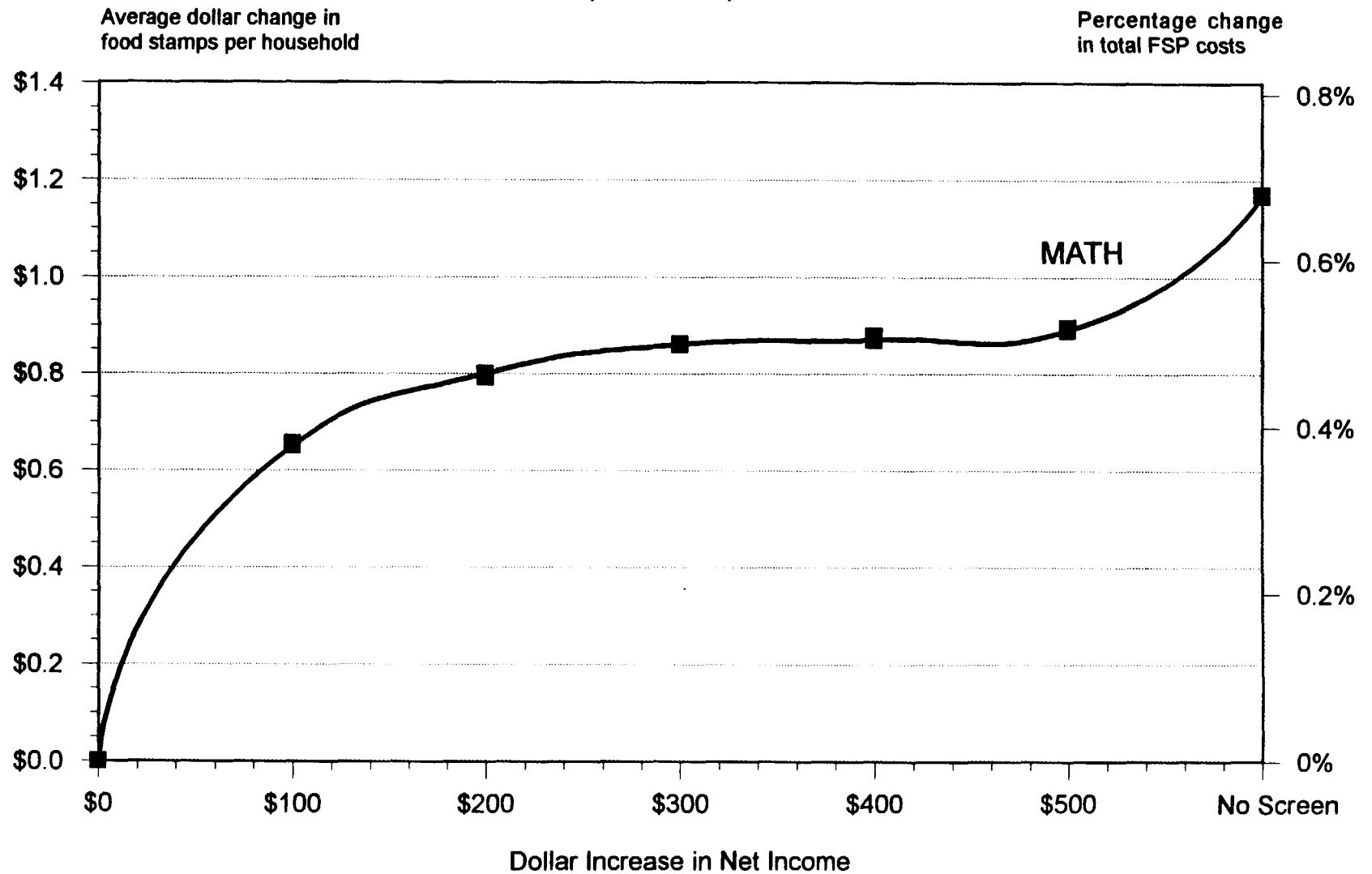


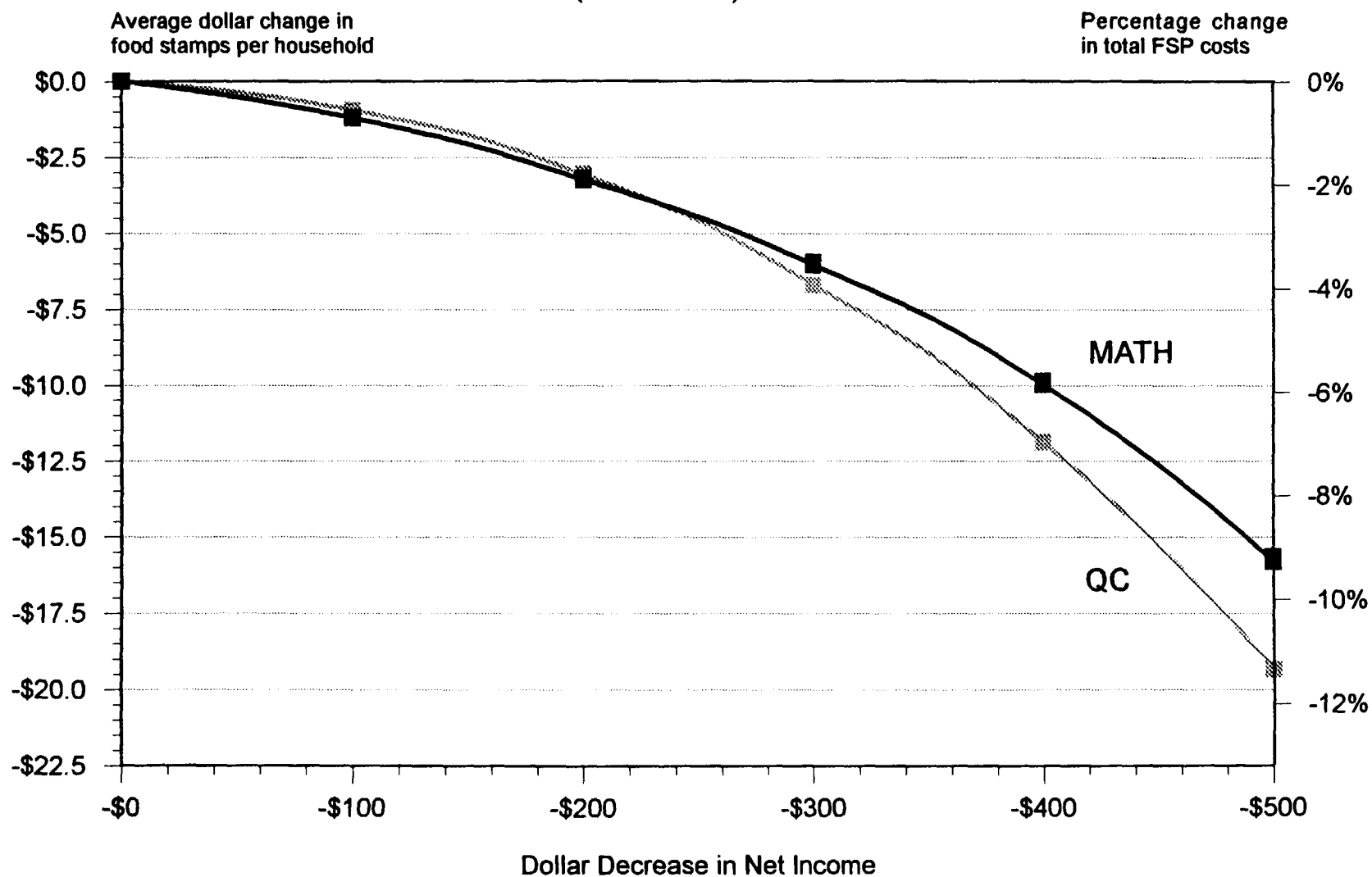
FIGURE A.2  
VEHICULAR ASSETS



**FIGURE A.3**  
**NET INCOME SCREEN**  
**(Increases)**



**FIGURE A.4**  
**NET INCOME SCREEN**  
**(Decreases)**



**FIGURE A.5**  
**MAXIMUM BENEFIT**

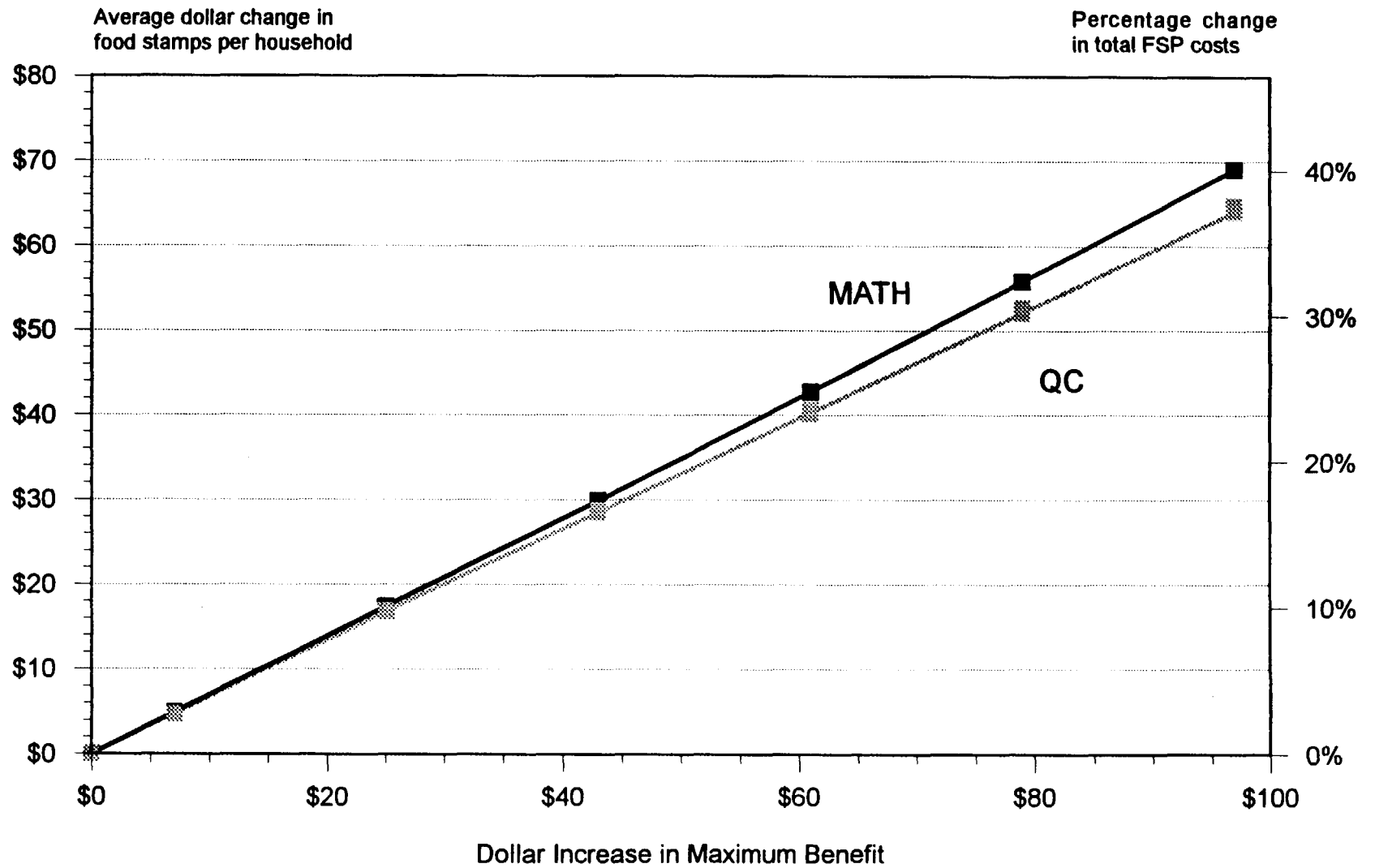
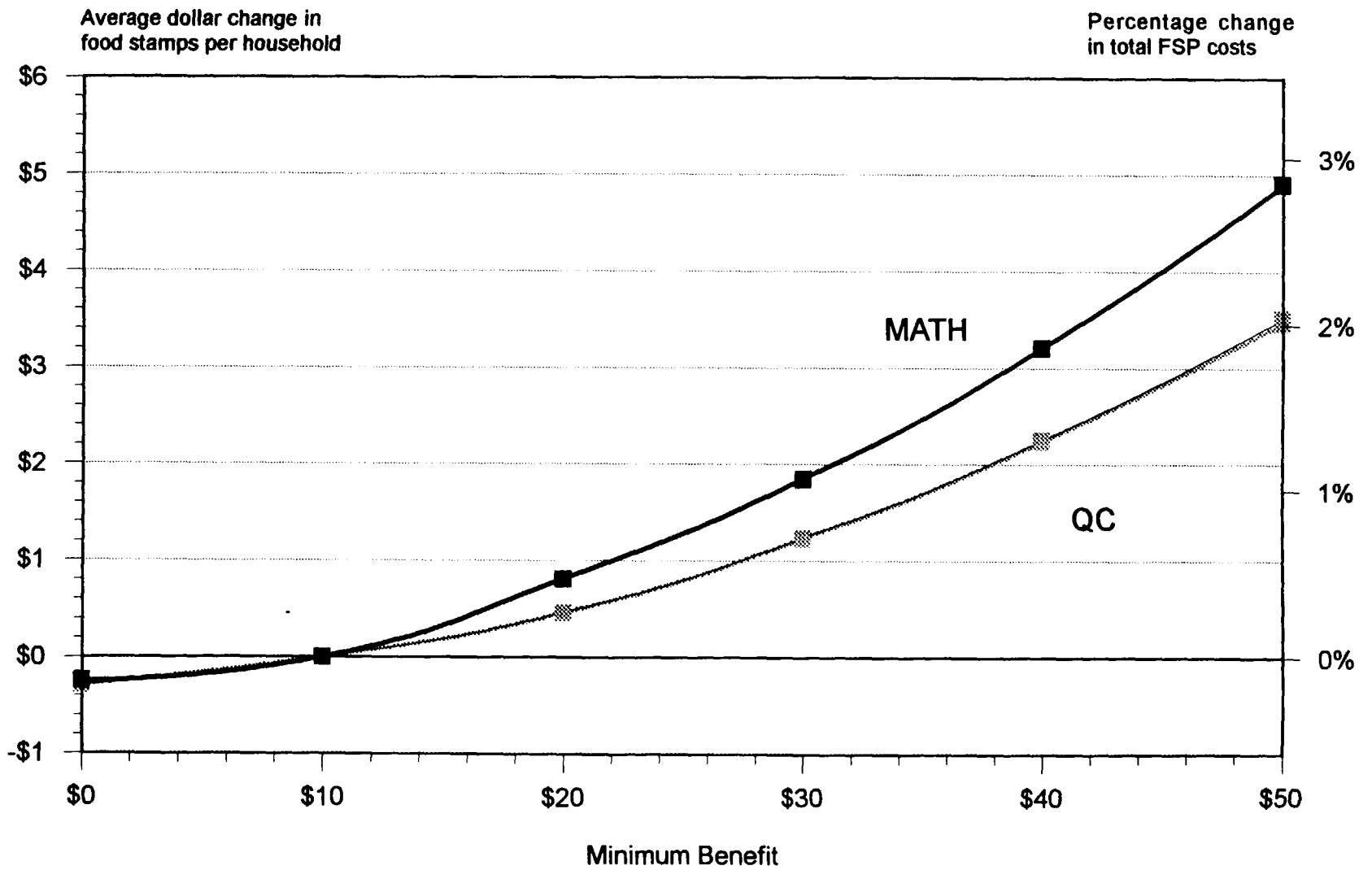
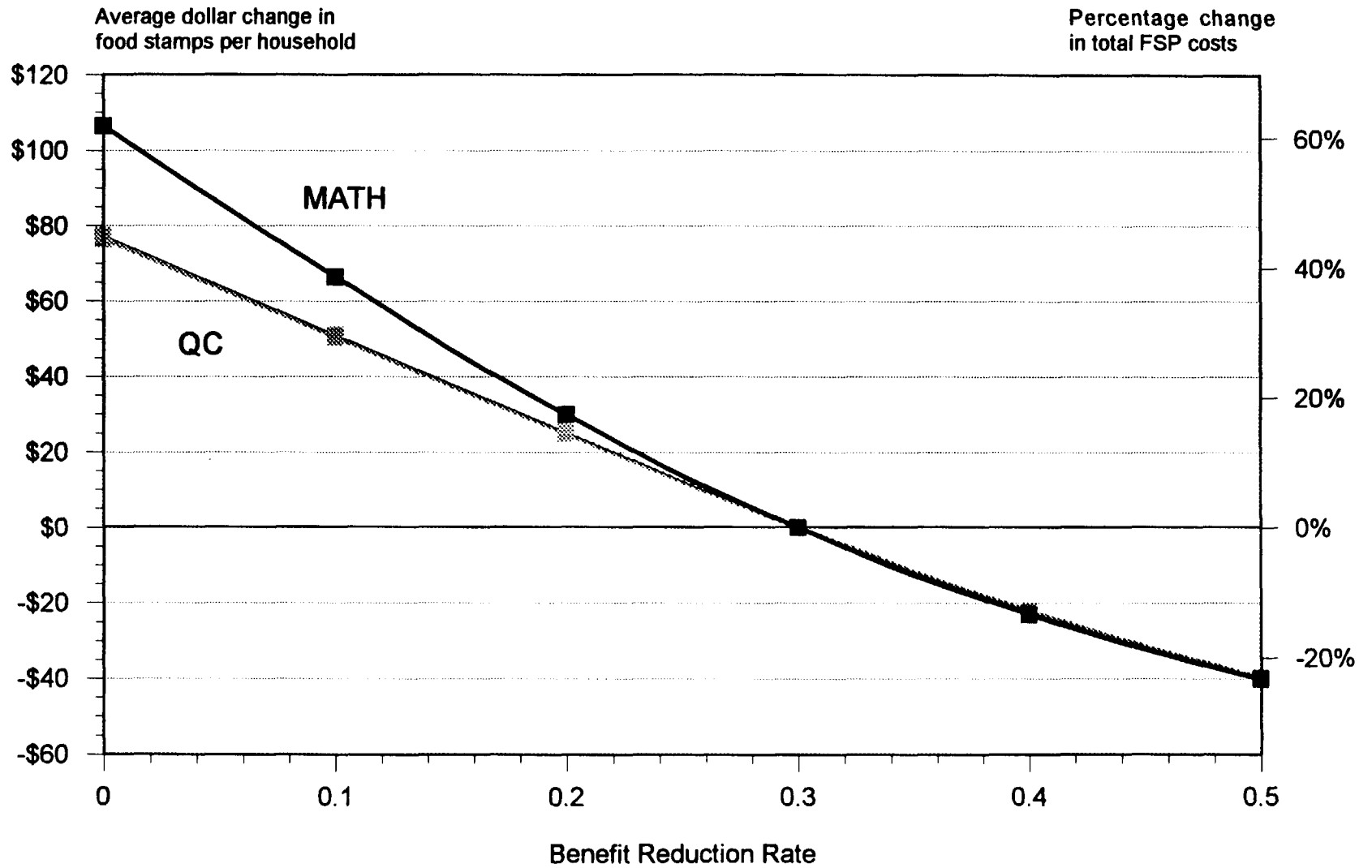


FIGURE A.6  
MINIMUM BENEFIT

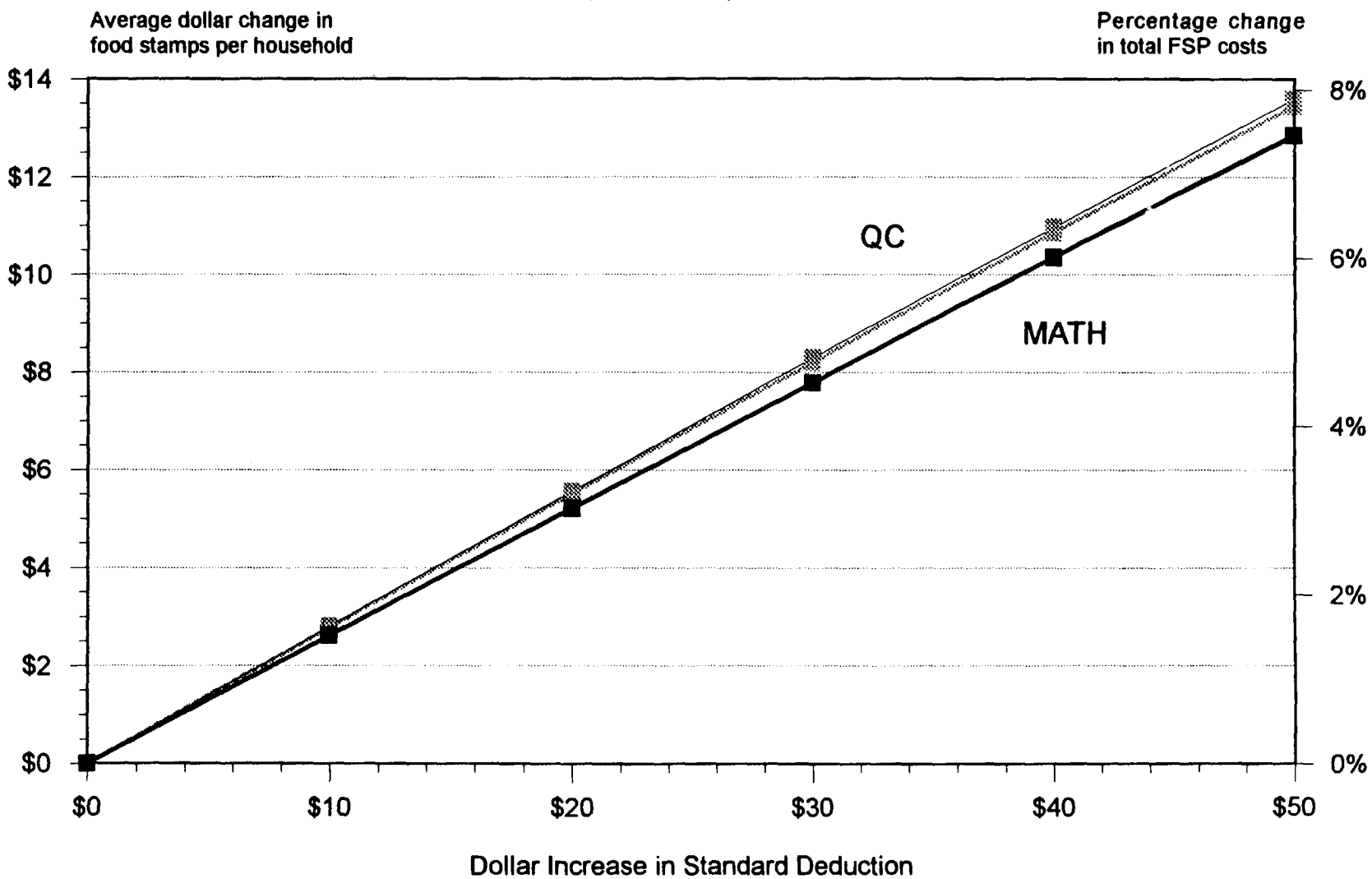


**FIGURE A.7**  
**BENEFIT REDUCTION RATE**





**FIGURE A.8**  
**STANDARD DEDUCTION**  
**(Increases)**



**FIGURE A.9**  
**STANDARD DEDUCTION**  
**(Decreases)**

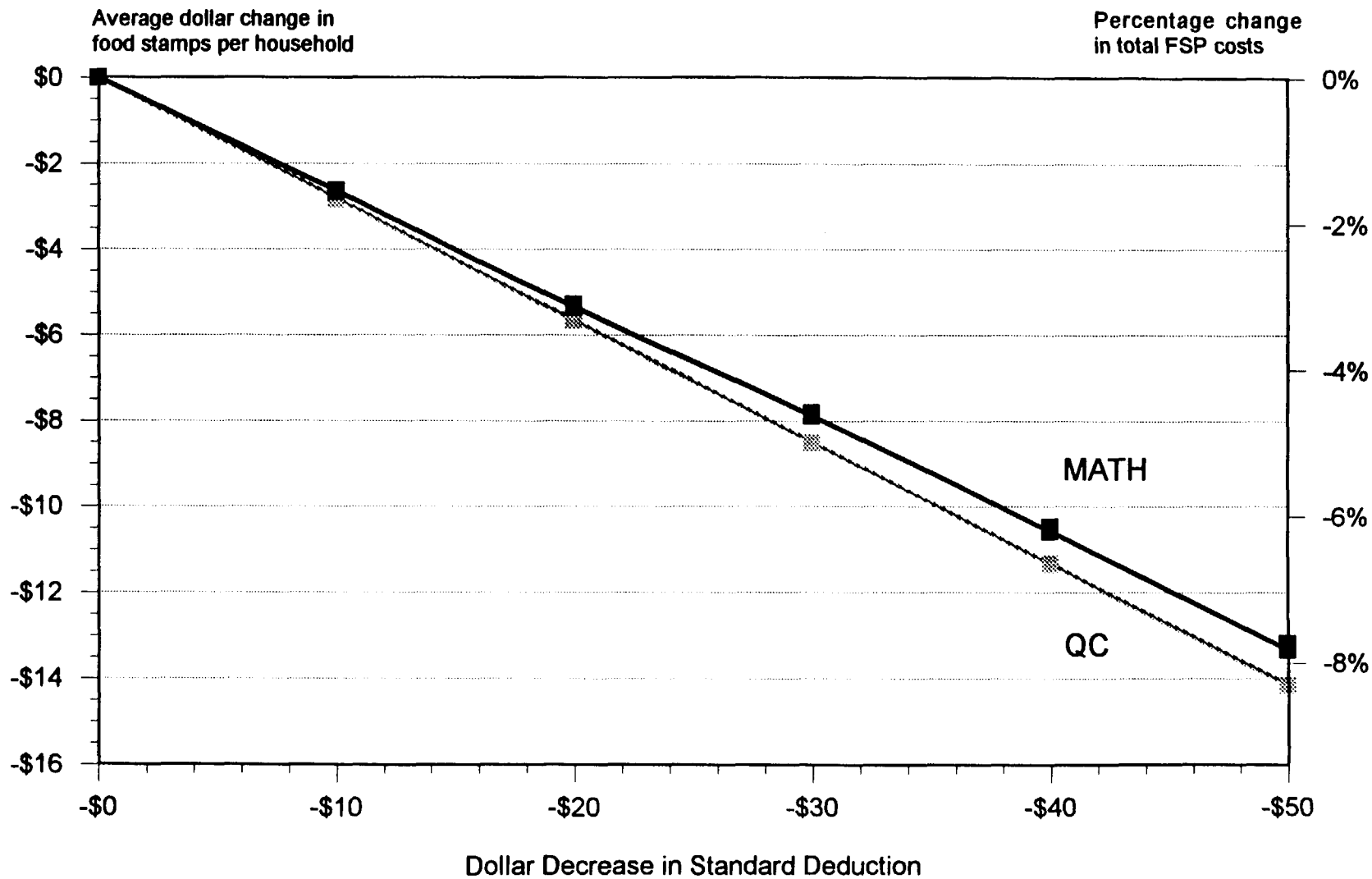
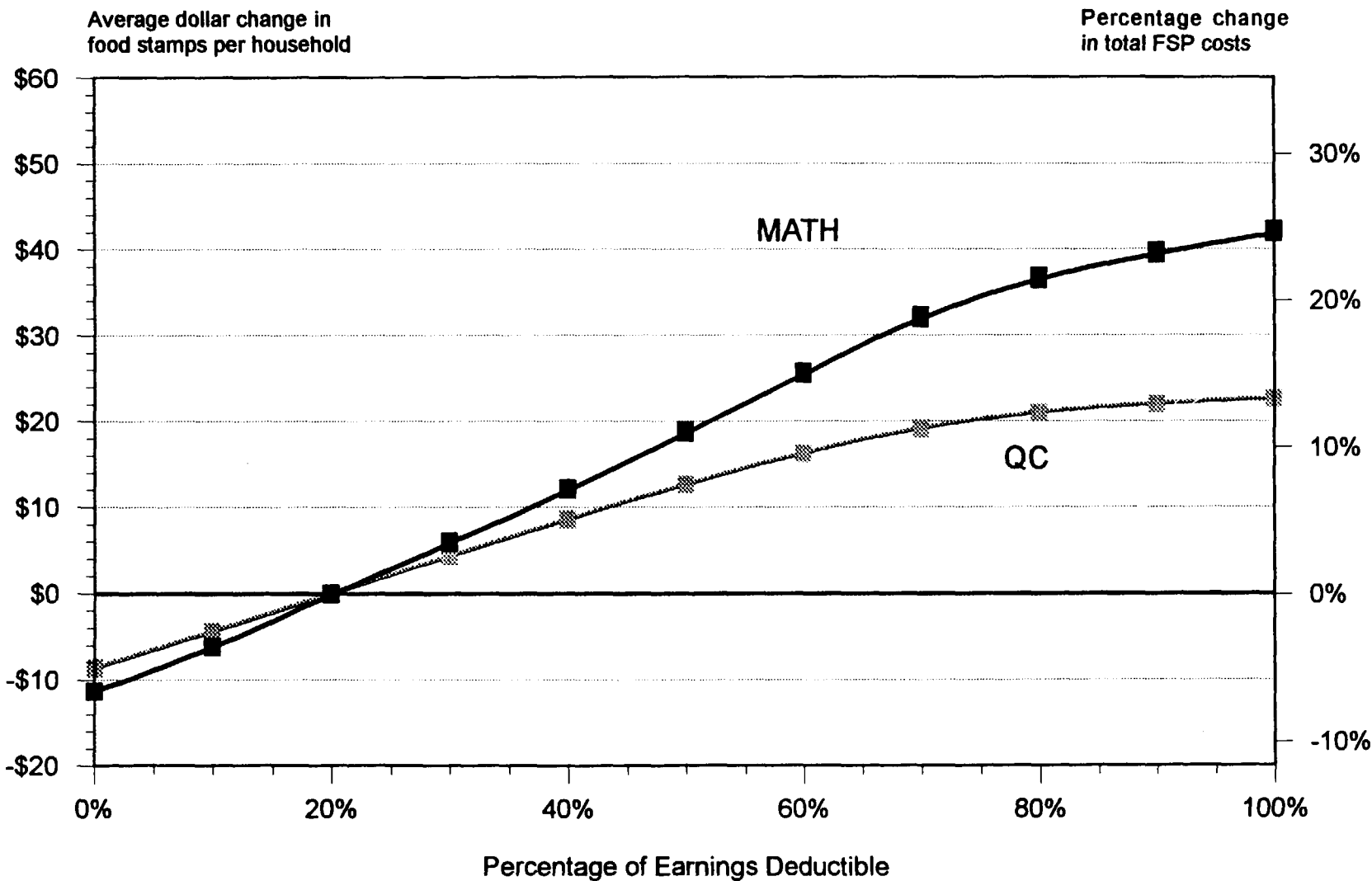


FIGURE A.10  
EARNINGS DEDUCTION



**FIGURE A.11**  
**MEDICAL DEDUCTION**

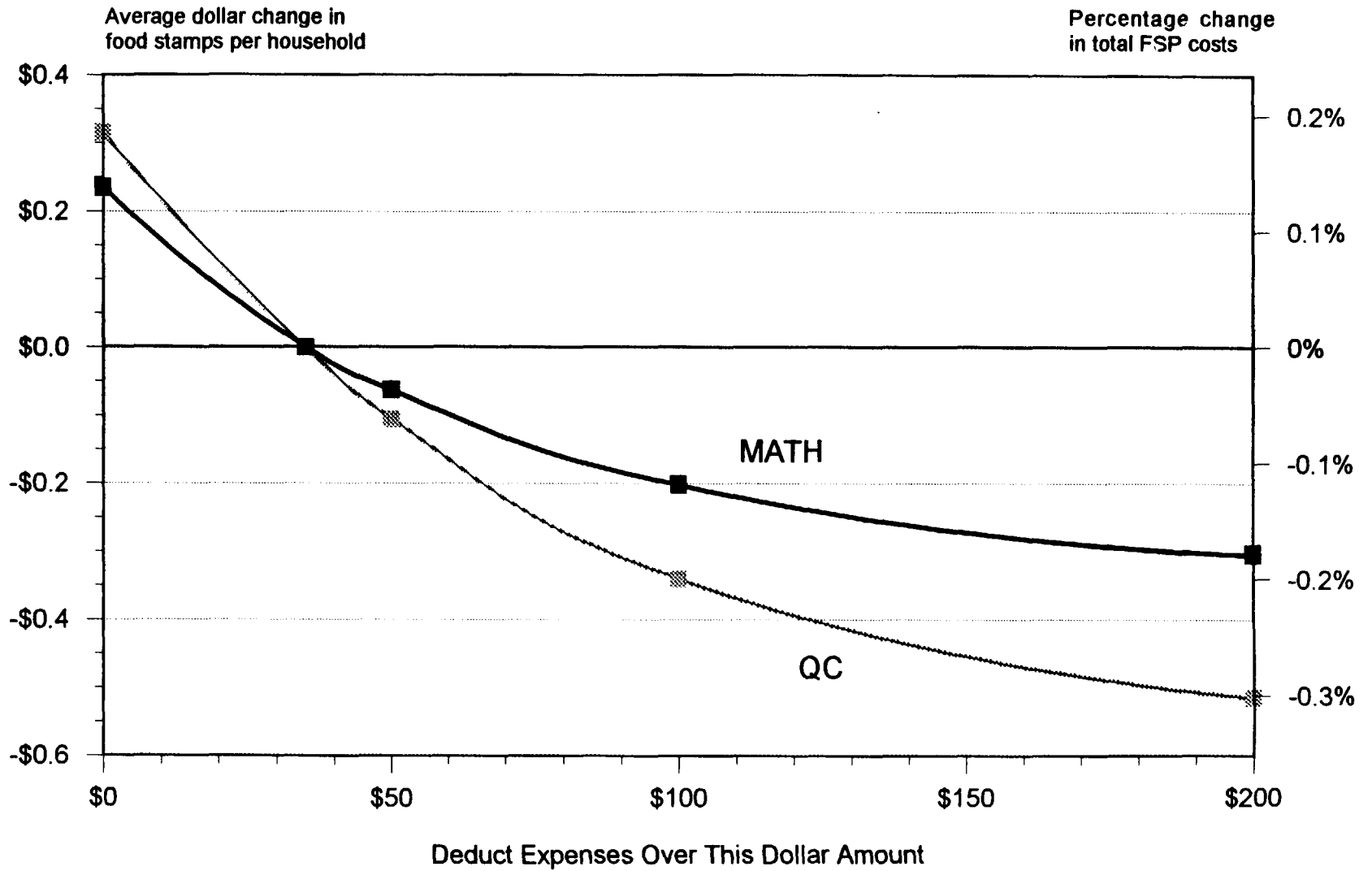
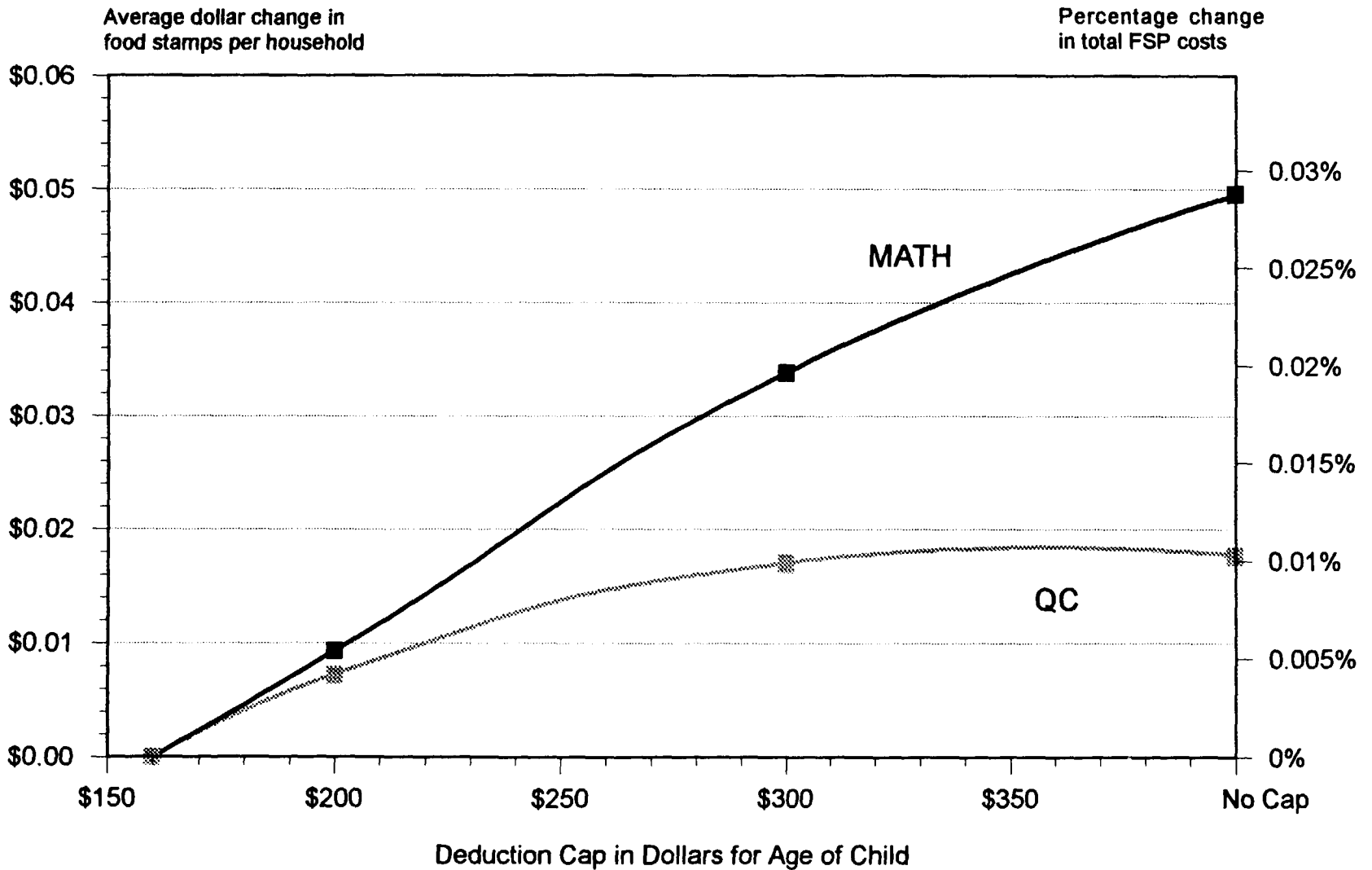
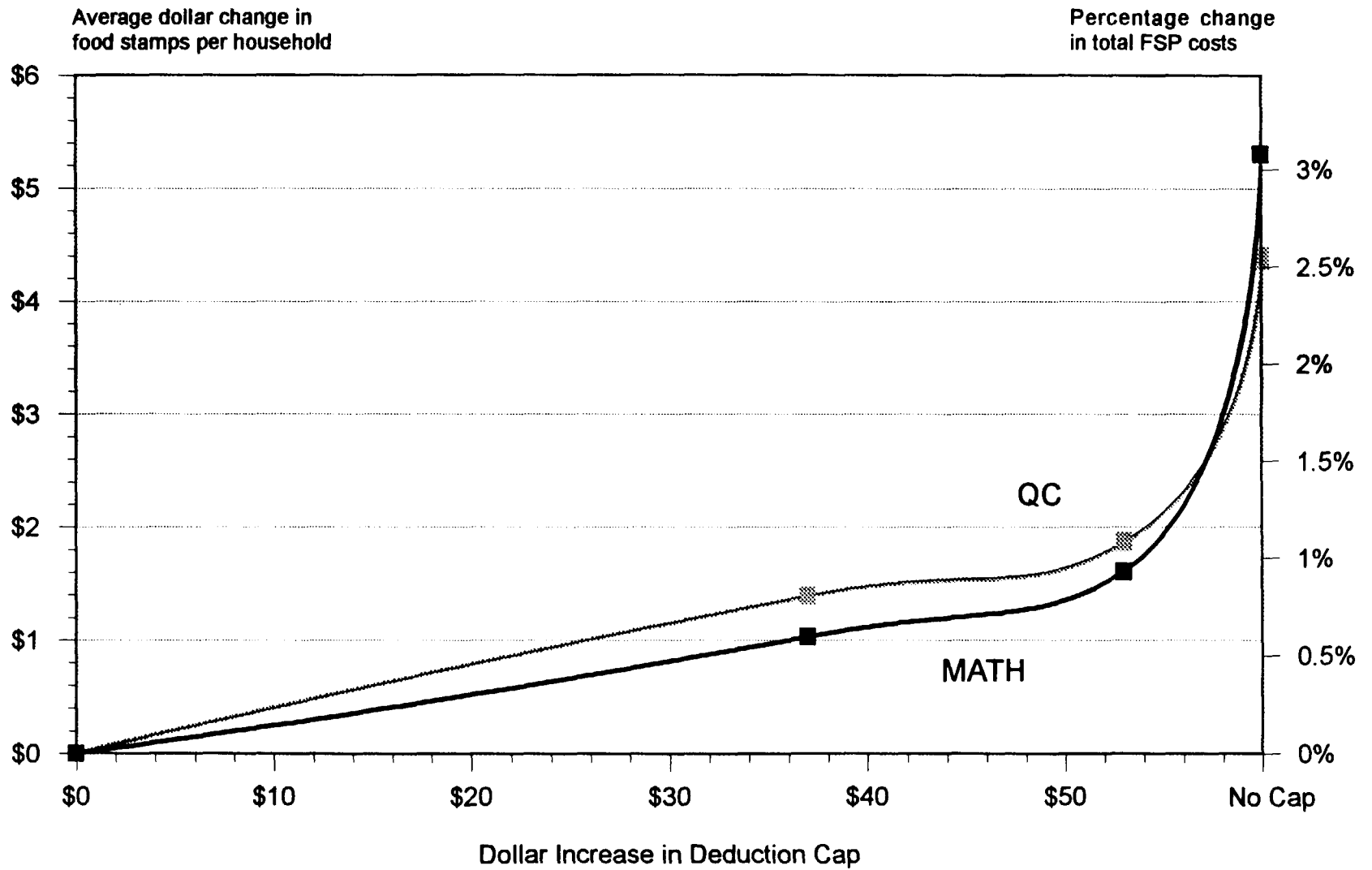


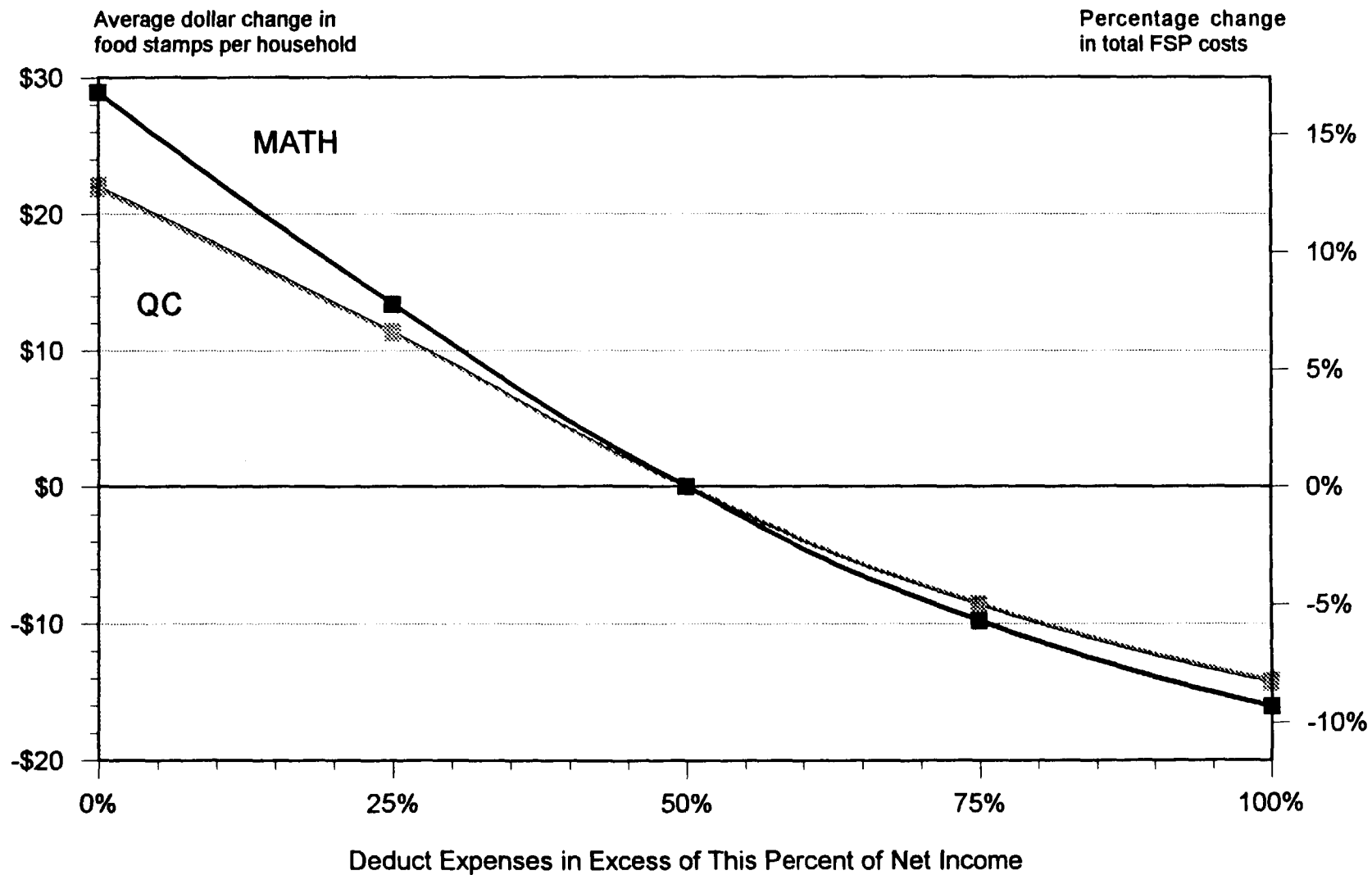
FIGURE A.12  
DEPENDENT CARE DEDUCTION



**FIGURE A.13**  
**SHELTER DEDUCTION**  
(Changes to Cap)



**FIGURE A.14**  
**SHELTER DEDUCTION**  
 (Changes to Threshold)



## **APPENDIX B**

### **SIPP AND ADMINISTRATIVE ESTIMATES OF PROGRAM PARTICIPATION AND BENEFITS**



TABLE B.1

SIPP AND ADMINISTRATIVE ESTIMATES OF PROGRAM PARTICIPATION  
AND BENEFITS IN JANUARY 1992

Program	Number of Units <sup>a</sup>	Total Program Benefits
<b>Food Stamp Program</b>		
Administrative Data	9,928,044	\$1,712,776,709
SIPP	7,491,986	\$1,246,442,720
Percent Difference	-24.54%	-27.23%
<b>Aid to Families with Dependent Children</b>		
Administrative Data	4,720,400	\$1,815,978,600
SIPP	3,420,421	\$1,297,044,356
Percent Difference	-27.54%	-28.58%
<b>Supplemental Security Income</b>		
Administrative Data	5,128,867	\$1,639,566,000
SIPP	4,217,498	\$1,286,334,916
Percent Difference	-17.77%	-21.54%
<b>Social Security</b>		
Administrative Data	40,556,025	\$23,051,906,000
SIPP	36,245,577	\$21,077,551,385
Percent Difference	-10.63%	-8.56%
<b>Unemployment Compensation</b>		
Administrative Data <sup>b</sup>	NA	\$3,073,341,667
SIPP	4,707,120	\$2,918,231,930
Percent Difference	NA	-5.05%

## SOURCES

**SIPP:** January 1992 SIPP Eligibility File.

**Food Stamp Program:** Food and Nutrition Service, U.S. Department of Agriculture.

**Aid to Families With Dependent Children:** Administration for Children and Families, U.S. Department of Health and Human Services.

**Supplemental Security Income and Social Security:** U.S. Department of Health and Human Services (1992).

**Unemployment Compensation:** U.S. Congress (1994).

<sup>a</sup>The number of units refers to program-defined units for the Food Stamp and Aid to Families With Dependent Children programs, and to individuals for the other programs.

<sup>b</sup>Administrative estimates for the Unemployment Compensation program are monthly averages for 1992.

NA = Not Available.